



Sequence Listing

<110> Eaton, Dan L.
Filvaroff, Ellen
Gerritsen, Mary E.
Goddard, Audrey
Godowski, Paul J.
Grimaldi, Christopher J.
Gurney, Austin L.
Watanabe, Colin K.
Wood, William I.

<120> SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
ACIDS ENCODING THE SAME

<130> P3230R1C105

<150> 60/063435

<151> 1997-10-29

<150> 60/064215

<151> 1997-10-29

<150> 60/082797

<151> 1998-04-22

<150> 60/083495

<151> 1998-04-29

<150> 60/085579

<151> 1998-05-15

<150> 60/087759

<151> 1998-06-02

<150> 60/088021

<151> 1998-06-04

<150> 60/088029

<151> 1998-06-04

<150> 60/088030

<151> 1998-06-04

<150> 60/088734

<151> 1998-06-10

<150> 60/088740

<151> 1998-06-10

<150> 60/088811

<151> 1998-06-10

<150> 60/088824

<151> 1998-06-10

<150> 60/088825

<151> 1998-06-10

<150> 60/088863
<151> 1998-06-11

<150> 60/089105
<151> 1998-06-12

<150> 60/089514
<151> 1998-06-16

<150> 60/089653
<151> 1998-06-17

<150> 60/089952
<151> 1998-06-19

<150> 60/090246
<151> 1998-06-22

<150> 60/090444
<151> 1998-06-24

<150> 60/090688
<151> 1998-06-25

<150> 60/090696
<151> 1998-06-25

<150> 60/090862
<151> 1998-06-26

<150> 60/091628
<151> 1998-07-02

<150> 60/096012
<151> 1998-08-10

<150> 60/096757
<151> 1998-08-17

<150> 60/096949
<151> 1998-08-18

<150> 60/096959
<151> 1998-08-18

<150> 60/097954
<151> 1998-08-26

<150> 60/097971
<151> 1998-08-26

<150> 60/097979
<151> 1998-08-26

<150> 60/098749

<151> 1998-09-01

<150> 60/099741
<151> 1998-09-10

<150> 60/099763
<151> 1998-09-10

<150> 60/099792
<151> 1998-09-10

<150> 60/099812
<151> 1998-09-10

<150> 60/099815
<151> 1998-09-10

<150> 60/100627
<151> 1998-09-16

<150> 60/100662
<151> 1998-09-16

<150> 60/100683
<151> 1998-09-17

<150> 60/100684
<151> 1998-09-17

<150> 60/100930
<151> 1998-09-17

<150> 60/101279
<151> 1998-09-22

<150> 60/101475
<151> 1998-09-23

<150> 60/101738
<151> 1998-09-24

<150> 60/101743
<151> 1998-09-24

<150> 60/101916
<151> 1998-09-24

<150> 60/102570
<151> 1998-09-30

<150> 60/103449
<151> 1998-10-06

<150> 60/103678
<151> 1998-10-08

<150> 60/103679

<151> 1998-10-08

<150> 60/103711
<151> 1998-10-08

<150> 60/105000
<151> 1998-10-20

<150> 60/105002
<151> 1998-10-20

<150> 60/105881
<151> 1998-10-27

<150> 60/106030
<151> 1998-10-28

<150> 60/106464
<151> 1998-10-30

<150> 60/106856
<151> 1998-11-03

<150> 60/108807
<151> 1998-11-17

<150> 60/112419
<151> 1998-12-15

<150> 60/112422
<151> 1998-12-15

<150> 60/112853
<151> 1998-12-16

<150> 60/113011
<151> 1998-12-16

<150> 60/112854
<151> 1998-12-16

<150> 60/113300
<151> 1998-12-22

<150> 60/113408
<151> 1998-12-22

<150> 60/113430
<151> 1998-12-23

<150> 60/113621
<151> 1998-12-23

<150> 60/114223
<151> 1998-12-30

<150> 60/115614

<151> 1999-01-12

<150> 60/116527
<151> 1999-01-20

<150> 60/116843
<151> 1999-01-22

<150> 60/119285
<151> 1999-02-09

<150> 60/119287
<151> 1999-02-09

<150> 60/119525
<151> 1999-02-10

<150> 60/119549
<151> 1999-02-10

<150> 60/120014
<151> 1999-02-11

<150> 60/129122
<151> 1999-04-13

<150> 60/129674
<151> 1999-04-16

<150> 60/131291
<151> 1999-04-27

<150> 60/138387
<151> 1999-06-09

<150> 60/144791
<151> 1999-07-20

<150> 60/169495
<151> 1999-12-07

<150> 60/175481
<151> 2000-01-11

<150> 60/191007
<151> 2000-03-21

<150> 60/199397
<151> 2000-04-25

<150> 09/380139
<151> 1998-08-25

<150> 09/311832
<151> 1999-05-14

<150> 09/380137

<151> 1999-08-25

<150> 09/380138
<151> 1999-08-25

<150> 09/380142
<151> 1999-08-25

<150> 09/397342
<151> 1999-09-15

<150> 09/403297
<151> 1999-10-18

<150> 09/423844
<151> 1999-11-12

<150> 09/644848
<151> 2000-08-22

<150> 09/665350
<151> 2000-09-18

<150> 09/664610
<151> 2000-09-18

<150> 09/709238
<151> 2000-11-08

<150> 09/747259
<151> 2000-12-20

<150> 09/816744
<151> 2001-03-22

<150> 09/854208
<151> 2001-05-10

<150> 09/854280
<151> 2001-05-10

<150> 09/870574
<151> 2001-05-30

<150> 09/874503
<151> 2001-06-05

<150> 09/869599
<151> 2001-06-29

<150> 09/908,827
<151> 2001-07-18

<150> PCT/US98/19330
<151> 1998-09-16

<150> PCT/US99/05028

<151> 1999-03-08

<150> PCT/US99/10733
<151> 1999-05-14

<150> PCT/US99/12252
<151> 1999-06-02

<150> PCT/US99/20111
<151> 1999-09-01

<150> PCT/US99/21090
<151> 1999-09-15

<150> PCT/US99/21194
<151> 1999-09-15

<150> PCT/US99/30720
<151> 1999-12-22

<150> PCT/US00/04341
<151> 2000-02-18

<150> PCT/US00/04342
<151> 2000-02-18

<150> PCT/US00/04414
<151> 2000-02-22

<150> PCT/US00/05601
<151> 2000-03-01

<150> PCT/US00/08439
<151> 2000-03-30

<150> PCT/US00/14042
<151> 2000-05-22

<150> PCT/US00/15264
<151> 2000-06-02

<150> PCT/US00/23522
<151> 2000-08-23

<150> PCT/US00/23328
<151> 2000-08-24

<150> PCT/US00/30873
<151> 2000-11-10

<150> PCT/US00/32378
<151> 2000-12-01

<150> PCT/US00/34956
<151> 2000-12-20

<150> PCT/US01/06520

<151> 2001-02-28

<150> PCT/US01/06666

<151> 2001-03-01

<150> PCT/US01/17443

<151> 2001-05-30

<150> PCT/US01/17800

<151> 2001-06-01

<150> PCT/US01/19692

<151> 2001-06-20

<150> PCT/US01/21066

<151> 2001-06-29

<150> PCT/US01/21735

<151> 2001-07-09

<160> 170

<210> 1

<211> 1173

<212> DNA

<213> Homo Sapien

<400> 1

ggggcttcgg cgccagcggc cagcgctagt cggctctggta aggatttaca 50

aaaggtgcag gtatgagcag gtctgaagac taacattttg tgaagttgta 100

aaacagaaaa cctgttagaa atgtggtggt ttcagcaagg cctcagtttc 150

cttccttcag cccttgtaat ttggacatct gctgctttca tattttcata 200

cattactgca gtaacactcc accatataga cccggcttta ccttatatca 250

gtgacactgg tacagtagct ccagaaaaat gcttatttgg ggcaatgcta 300

aatattgcgg cagttttatg cattgctacc atttatgttc gttataagca 350

agttcatgct ctgagtcctg aagagaacgt tatcatcaaa ttaaacaagg 400

ctggccttgt acttgaata ctgagttggt taggactttc tattgtggca 450

aacttccaga aaacaaccct ttttgctgca catgtaagtg gagctgtgct 500

tacctttggg atgggctcat tatatatgtt tgttcagacc atcctttcct 550

accaaagca gcccaaaatc catggcaaac aagtcttctg gatcagactg 600

ttgttggtta tctggtgtgg agtaagtgca cttagcatgc tgacttgctc 650

atcagttttg cacagtggca attttgggac tgatttagaa cagaaactcc 700

attggaaccc cgaggacaaa ggttatgtgc ttcacatgat cactactgca 750

gcagaatggg ctatgtcatt ttccttcttt gggtttttcc tgacttacat 800
tcgtgatttt cagaaaattt ctttacgggt ggaagccaat ttacatggat 850
taaccctcta tgacactgca cttgccccta ttaacaatga acgaacacgg 900
ctactttcca gagatatttg atgaaaggat aaaatatttc tgtaatgatt 950
atgattctca gggattgggg aaagggtcac agaagttgct tattcttctc 1000
tgaaattttc aaccacttaa tcaaggctga cagtaacact gatgaatgct 1050
gataatcagg aaacatgaaa gaagccattt gatagattat tctaaaggat 1100
atcatcaaga agactattaa aaacacctat gcctatactt ttttatctca 1150
gaaaataaag tcaaaagact atg 1173

<210> 2
<211> 266
<212> PRT
<213> Homo Sapien

<400> 2
Met Trp Trp Phe Gln Gln Gly Leu Ser Phe Leu Pro Ser Ala Leu
1 5 10 15
Val Ile Trp Thr Ser Ala Ala Phe Ile Phe Ser Tyr Ile Thr Ala
20 25 30
Val Thr Leu His His Ile Asp Pro Ala Leu Pro Tyr Ile Ser Asp
35 40 45
Thr Gly Thr Val Ala Pro Glu Lys Cys Leu Phe Gly Ala Met Leu
50 55 60
Asn Ile Ala Ala Val Leu Cys Ile Ala Thr Ile Tyr Val Arg Tyr
65 70 75
Lys Gln Val His Ala Leu Ser Pro Glu Glu Asn Val Ile Ile Lys
80 85 90
Leu Asn Lys Ala Gly Leu Val Leu Gly Ile Leu Ser Cys Leu Gly
95 100 105
Leu Ser Ile Val Ala Asn Phe Gln Lys Thr Thr Leu Phe Ala Ala
110 115 120
His Val Ser Gly Ala Val Leu Thr Phe Gly Met Gly Ser Leu Tyr
125 130 135
Met Phe Val Gln Thr Ile Leu Ser Tyr Gln Met Gln Pro Lys Ile
140 145 150
His Gly Lys Gln Val Phe Trp Ile Arg Leu Leu Leu Val Ile Trp
155 160 165

Cys Gly Val Ser	Ala Leu Ser Met Leu Thr Cys Ser Ser Val Leu	
	170	175 180
His Ser Gly Asn Phe Gly Thr Asp Leu Glu Gln Lys Leu His Trp		
	185	190 195
Asn Pro Glu Asp Lys Gly Tyr Val Leu His Met Ile Thr Thr Ala		
	200	205 210
Ala Glu Trp Ser Met Ser Phe Ser Phe Phe Gly Phe Phe Leu Thr		
	215	220 225
Tyr Ile Arg Asp Phe Gln Lys Ile Ser Leu Arg Val Glu Ala Asn		
	230	235 240
Leu His Gly Leu Thr Leu Tyr Asp Thr Ala Pro Cys Pro Ile Asn		
	245	250 255
Asn Glu Arg Thr Arg Leu Leu Ser Arg Asp Ile		
	260	265

<210> 3
 <211> 2037
 <212> DNA
 <213> Homo Sapien

<400> 3
 cggacgcgtg ggcggacgcg tgggggagag ccgcagtccc ggctgcagca 50
 cctgggagaa ggcagaccgt gtgagggggc ctgtggcccc agcgtgctgt 100
 ggcctcgggg agtggaagt ggaggcagga gccttcctta cacttcgcca 150
 tgagtttcct catcgactcc agcatcatga ttacctcca gatactattt 200
 tttggatttg ggtggctttt cttcatgcgc caattgttta aagactatga 250
 gatacgtcag tatgttgtac aggtgatctt ctccgtgacg tttgcatttt 300
 cttgcaccat gtttgagctc atcatctttg aaatcttagg agtattgaat 350
 agcagctccc gttattttca ctggaaaatg aacctgtgtg taattctgct 400
 gatcctgggt ttcattgggtg cttttttacat tggctatttt attgtgagca 450
 atatccgact actgcataaa caacgactgc ttttttcctg tctcttatgg 500
 ctgaccttta tgtattttct ctggaaacta ggagatccct ttcccattct 550
 cagcccaaaa catgggatct tatccataga acagctcatc agccgggttg 600
 gtgtgattgg agtgactctc atggctcttc tttctggatt tgggtgctgtc 650
 aactgcccac aactttacat gtcttacttc ctcaggaatg tgactgacac 700
 ggatattcta gccctggaac ggcgactgct gcaaaccatg gatatgatca 750

taagcaaaaa gaaaaggatg gcaatggcac ggagaacaat gttccagaag 800
 ggggaagtgc ataacaaacc atcaggtttc tggggaatga taaaaagtgt 850
 taccacttca gcatcaggaa gtgaaaatct tactcttatt caacaggaag 900
 tggatgcttt ggaagaatta agcaggcagc tttttctgga aacagctgat 950
 ctatatgcta ccaaggagag aatagaatac tccaaaacct tcaaggggaa 1000
 atattttaat tttcttggtt actttttctc tattttactgt gtttggaata 1050
 ttttcatggc taccatcaat attgtttttg atcgagttgg gaaaacggat 1100
 cctgtcacia gaggcattga gatcactgtg aattatctgg gaatccaatt 1150
 tgatgtgaag ttttgggtccc aacacatttc cttcattctt gttggaataa 1200
 tcacgtcac atccatcaga ggattgctga tcactcttac caagttcttt 1250
 tatgccatct ctagcagtaa gtcttccaat gtcattgtcc tgctattagc 1300
 acagataatg ggcatgtact ttgtctctc tgtgctgctg atccgaatga 1350
 gtatgccttt agaataccgc accataatca ctgaagtcct tggagaactg 1400
 cagttcaact tctatcacgc ttggtttgat gtgatcttcc tggtcagcgc 1450
 tctctctagc atactcttcc tctatttggc tcacaaacag gcaccagaga 1500
 agcaaattggc accttgaact taagcctact acagactgtt agaggccagt 1550
 ggtttcaaaa tttagatata agagggggga aaaatggaac cagggcctga 1600
 cattttataa acaaacaaaa tgctatggta gcatttttca ctttcatagc 1650
 atactccttc cccgtcaggt gatactatga ccatgagtag catcagccag 1700
 aacatgagag ggagaactaa ctcaagacaa tactcagcag agagcatccc 1750
 gtgtggatat gaggctggtg tagaggcgga gaggagcaa gaaactaaag 1800
 gtgaaaaata cactggaact ctggggcaag acatgtctat ggtagctgag 1850
 ccaaacacgt aggatttccg ttttaagggt cacatggaaa aggttatagc 1900
 ttgacctga gattgactca ttaaaatcag agactgtaac aaaaaaaaaa 1950
 aaaaaaaaaa agggcggccg cgactctaga gtcgacctgc agaagcttgg 2000
 ccgccatggc ccaacttggt tattgcagct tataatg 2037

<210> 4
 <211> 455
 <212> PRT
 <213> Homo Sapien

<400> 4

Met	Ser	Phe	Leu	Ile	Asp	Ser	Ser	Ile	Met	Ile	Thr	Ser	Gln	Ile
1				5					10					15
Leu	Phe	Phe	Gly	Phe	Gly	Trp	Leu	Phe	Phe	Met	Arg	Gln	Leu	Phe
				20					25					30
Lys	Asp	Tyr	Glu	Ile	Arg	Gln	Tyr	Val	Val	Gln	Val	Ile	Phe	Ser
				35					40					45
Val	Thr	Phe	Ala	Phe	Ser	Cys	Thr	Met	Phe	Glu	Leu	Ile	Ile	Phe
				50					55					60
Glu	Ile	Leu	Gly	Val	Leu	Asn	Ser	Ser	Ser	Arg	Tyr	Phe	His	Trp
				65					70					75
Lys	Met	Asn	Leu	Cys	Val	Ile	Leu	Leu	Ile	Leu	Val	Phe	Met	Val
				80					85					90
Pro	Phe	Tyr	Ile	Gly	Tyr	Phe	Ile	Val	Ser	Asn	Ile	Arg	Leu	Leu
				95					100					105
His	Lys	Gln	Arg	Leu	Leu	Phe	Ser	Cys	Leu	Leu	Trp	Leu	Thr	Phe
				110					115					120
Met	Tyr	Phe	Phe	Trp	Lys	Leu	Gly	Asp	Pro	Phe	Pro	Ile	Leu	Ser
				125					130					135
Pro	Lys	His	Gly	Ile	Leu	Ser	Ile	Glu	Gln	Leu	Ile	Ser	Arg	Val
				140					145					150
Gly	Val	Ile	Gly	Val	Thr	Leu	Met	Ala	Leu	Leu	Ser	Gly	Phe	Gly
				155					160					165
Ala	Val	Asn	Cys	Pro	Tyr	Thr	Tyr	Met	Ser	Tyr	Phe	Leu	Arg	Asn
				170					175					180
Val	Thr	Asp	Thr	Asp	Ile	Leu	Ala	Leu	Glu	Arg	Arg	Leu	Leu	Gln
				185					190					195
Thr	Met	Asp	Met	Ile	Ile	Ser	Lys	Lys	Lys	Arg	Met	Ala	Met	Ala
				200					205					210
Arg	Arg	Thr	Met	Phe	Gln	Lys	Gly	Glu	Val	His	Asn	Lys	Pro	Ser
				215					220					225
Gly	Phe	Trp	Gly	Met	Ile	Lys	Ser	Val	Thr	Thr	Ser	Ala	Ser	Gly
				230					235					240
Ser	Glu	Asn	Leu	Thr	Leu	Ile	Gln	Gln	Glu	Val	Asp	Ala	Leu	Glu
				245					250					255
Glu	Leu	Ser	Arg	Gln	Leu	Phe	Leu	Glu	Thr	Ala	Asp	Leu	Tyr	Ala
				260					265					270
Thr	Lys	Glu	Arg	Ile	Glu	Tyr	Ser	Lys	Thr	Phe	Lys	Gly	Lys	Tyr
				275					280					285

Phe Asn Phe Leu Gly Tyr Phe Phe Ser Ile Tyr Cys Val Trp Lys	290	295	300
Ile Phe Met Ala Thr Ile Asn Ile Val Phe Asp Arg Val Gly Lys	305	310	315
Thr Asp Pro Val Thr Arg Gly Ile Glu Ile Thr Val Asn Tyr Leu	320	325	330
Gly Ile Gln Phe Asp Val Lys Phe Trp Ser Gln His Ile Ser Phe	335	340	345
Ile Leu Val Gly Ile Ile Ile Val Thr Ser Ile Arg Gly Leu Leu	350	355	360
Ile Thr Leu Thr Lys Phe Phe Tyr Ala Ile Ser Ser Ser Lys Ser	365	370	375
Ser Asn Val Ile Val Leu Leu Leu Ala Gln Ile Met Gly Met Tyr	380	385	390
Phe Val Ser Ser Val Leu Leu Ile Arg Met Ser Met Pro Leu Glu	395	400	405
Tyr Arg Thr Ile Ile Thr Glu Val Leu Gly Glu Leu Gln Phe Asn	410	415	420
Phe Tyr His Arg Trp Phe Asp Val Ile Phe Leu Val Ser Ala Leu	425	430	435
Ser Ser Ile Leu Phe Leu Tyr Leu Ala His Lys Gln Ala Pro Glu	440	445	450
Lys Gln Met Ala Pro	455		

<210> 5

<211> 2372

<212> DNA

<213> Homo Sapien

<400> 5

```

agcagggaaa tccggatgtc tcggttatga agtggagcag tgagtgtgag 50
cctcaacata gttccagaac tctccatccg gactagttat tgagcatctg 100
cctctcatat caccagtggc catctgaggt gtttccttgg ctctgaaggg 150
gtaggcacga tggccaggtg cttcagcctg gtgttgcttc tcacttccat 200
ctggaccacg aggctcctgg tccaaggctc tttgcgtgca gaagagcttt 250
ccatccaggt gtcatgcaga attatgggga tcacccttgt gagcaaaaag 300
gcgaaccagc agctgaattt cacagaagct aaggaggcct gtaggctgct 350
gggactaagt ttggccggca aggaccaagt tgaaacagcc ttgaaagcta 400

```

gctttgaaac ttgcagctat ggctgggttg gagatggatt cgtggtcac 450
 tctaggatta gcccaaacc caagtgtggg aaaaatgggg tgggtgtcct 500
 gatttggaag gttccagtga gccgacagtt tgcagcctat tgttacaact 550
 catctgatac ttggactaac tcgtgcattc cagaaattat caccacccaa 600
 gatcccatat tcaacactca aactgcaaca caaacaacag aatttattgt 650
 cagtgcagct acctactcgg tggcatcccc ttactctaca atacctgcc 700
 ctactactac tcctcctgct ccagcttcca cttctattcc acggagaaaa 750
 aaattgattt gtgtcacaga agtttttatg gaaactagca ccatgtctac 800
 agaaactgaa ccatttggtt aaaataaagc agcattcaag aatgaagctg 850
 ctgggttttg aggtgtcccc acggctctgc tagtgcttgc tctcctcttc 900
 tttggtgctg cagctgggtct tggattttgc tatgtcaaaa ggtatgtgaa 950
 ggccttcctt ttacaaaca agaatcagca gaaggaaatg atcgaaacca 1000
 aagtagtaaa ggaggagaag gccaatgata gcaaccctaa tgaggaaatca 1050
 aagaaaactg ataaaaacc agaagagtcc aagagtccaa gcaaaactac 1100
 cgtgcgatgc ctggaagctg aagtttagat gagacagaaa tgaggagaca 1150
 cacctgaggc tggtttcttt catgctcctt accctgcccc agctggggaa 1200
 atcaaaaggg ccaaagaacc aaagaagaaa gtccaccctt ggttcctaac 1250
 tggaatcagc tcaggactgc cattggacta tggagtgcac caaagagaat 1300
 gcccttctcc ttattgtaac cctgtctgga tcctatcttc ctacctcaa 1350
 agcttccac ggcctttcta gcctggctat gtcctaataa tatccactg 1400
 ggagaaagga gttttgcaaa gtgcaaggac ctaaaacatc tcatcagtat 1450
 ccagtggtaa aaaggcctcc tggctgtctg aggctaggtg ggttgaaagc 1500
 caaggagtca ctgagaccaa ggctttctct actgattccg cagctcagac 1550
 cttttcttca gctctgaaag agaaacacgt atcccacctg acatgtcctt 1600
 ctgagcccgg taagagcaaa agaatggcag aaaagtttag cccctgaaag 1650
 ccatggagat tctcataact tgagacctaa tctctgtaaa gctaaaataa 1700
 agaaatagaa caaggctgag gatacgacag tacactgtca gcagggactg 1750
 taaacacaga caggggtcaaa gtgttttctc tgaacacatt gagttggaat 1800

cactgttttag aacacacaca cttacttttt ctggtctcta ccactgctga 1850
 tattttctct aggaaatata cttttacaag taacaaaaat aaaaactctt 1900
 ataaatttct atttttatct gagttacaga aatgattact aaggaagatt 1950
 actcagtaat ttgttttaaa agtaataaaa ttcaacaaac atttgctgaa 2000
 tagctactat atgtcaagtg ctgtgcaagg tattacactc tgtaattgaa 2050
 tattattcct caaaaaattg cacatagtag aacgctatct gggaagctat 2100
 ttttttcagt tttgatattt ctagcttata tacttcctaa ctaattttta 2150
 tttttgctga gactaatctt attcattttc tctaatatgg caaccattat 2200
 aaccttaatt tattattaac atacctaaga agtacattgt tacctctata 2250
 taccaaagca catttttaaaa gtgccattaa caaatgtatc actagccctc 2300
 ctttttcctc caagaaggga ctgagagatg cagaaatatt tgtgacaaaa 2350
 aattaaagca tttagaaaac tt 2372

<210> 6
 <211> 322
 <212> PRT
 <213> Homo Sapien

<400> 6
 Met Ala Arg Cys Phe Ser Leu Val Leu Leu Leu Thr Ser Ile Trp
 1 5 10 15
 Thr Thr Arg Leu Leu Val Gln Gly Ser Leu Arg Ala Glu Glu Leu
 20 25 30
 Ser Ile Gln Val Ser Cys Arg Ile Met Gly Ile Thr Leu Val Ser
 35 40 45
 Lys Lys Ala Asn Gln Gln Leu Asn Phe Thr Glu Ala Lys Glu Ala
 50 55 60
 Cys Arg Leu Leu Gly Leu Ser Leu Ala Gly Lys Asp Gln Val Glu
 65 70 75
 Thr Ala Leu Lys Ala Ser Phe Glu Thr Cys Ser Tyr Gly Trp Val
 80 85 90
 Gly Asp Gly Phe Val Val Ile Ser Arg Ile Ser Pro Asn Pro Lys
 95 100 105
 Cys Gly Lys Asn Gly Val Gly Val Leu Ile Trp Lys Val Pro Val
 110 115 120
 Ser Arg Gln Phe Ala Ala Tyr Cys Tyr Asn Ser Ser Asp Thr Trp
 125 130 135

Thr	Asn	Ser	Cys	Ile	Pro	Glu	Ile	Ile	Thr	Thr	Lys	Asp	Pro	Ile	
				140					145					150	
Phe	Asn	Thr	Gln	Thr	Ala	Thr	Gln	Thr	Thr	Glu	Phe	Ile	Val	Ser	
				155					160					165	
Asp	Ser	Thr	Tyr	Ser	Val	Ala	Ser	Pro	Tyr	Ser	Thr	Ile	Pro	Ala	
				170					175					180	
Pro	Thr	Thr	Thr	Pro	Pro	Ala	Pro	Ala	Ser	Thr	Ser	Ile	Pro	Arg	
				185					190					195	
Arg	Lys	Lys	Leu	Ile	Cys	Val	Thr	Glu	Val	Phe	Met	Glu	Thr	Ser	
				200					205					210	
Thr	Met	Ser	Thr	Glu	Thr	Glu	Pro	Phe	Val	Glu	Asn	Lys	Ala	Ala	
				215					220					225	
Phe	Lys	Asn	Glu	Ala	Ala	Gly	Phe	Gly	Gly	Val	Pro	Thr	Ala	Leu	
				230					235					240	
Leu	Val	Leu	Ala	Leu	Leu	Phe	Phe	Gly	Ala	Ala	Ala	Gly	Leu	Gly	
				245					250					255	
Phe	Cys	Tyr	Val	Lys	Arg	Tyr	Val	Lys	Ala	Phe	Pro	Phe	Thr	Asn	
				260					265					270	
Lys	Asn	Gln	Gln	Lys	Glu	Met	Ile	Glu	Thr	Lys	Val	Val	Lys	Glu	
				275					280					285	
Glu	Lys	Ala	Asn	Asp	Ser	Asn	Pro	Asn	Glu	Glu	Ser	Lys	Lys	Thr	
				290					295					300	
Asp	Lys	Asn	Pro	Glu	Glu	Ser	Lys	Ser	Pro	Ser	Lys	Thr	Thr	Val	
				305					310					315	
Arg	Cys	Leu	Glu	Ala	Glu	Val									
				320											

<210> 7

<211> 2586

<212> DNA

<213> Homo Sapien

<400> 7

```

cgccgcgctc cgcacccgc ggcgcgcca ccgcgcgct cccgcacgtg 50
caccgcagc ccggcgccct cccggcgga gcgagcagat ccagtcggc 100
ccgcagcgca actcggtcca gtcggggcg cggtgcggg cgcagagcg 150
agatgcagcg gcttggggcc accctgctgt gctgctgct ggcgggcg 200
gtccccacgg ccccgcgcc cgctccgac ggcacctcg ctccagtcaa 250
gcccgggccg gctctcagct accgcagga ggaggccacc ctcaatgaga 300

```


tggtccgcga ggttgaggaa ctgatggagg acacgcagca caaattgcgc 350
 agcgcggttg aagagatgga ggcagaagaa gctgctgcta aagcatcatc 400
 agaagtgaac ctggcaaact tacctcccag ctatcacaat gagaccaaca 450
 cagacacgaa ggttggaat aataccatcc atgtgcaccg agaaattcac 500
 aagataacca acaaccagac tggacaaatg gtcttttcag agacagttat 550
 cacatctgtg ggagacgaag aaggcagaag gagccacgag tgcacatcg 600
 acgaggactg tgggcccagc atgtactgcc agtttgccag cttccagtac 650
 acctgccagc catgccgggg ccagaggatg ctctgcaccc gggacagtga 700
 gtgctgtgga gaccagctgt gtgtctgggg tcaactgcacc aaaatggcca 750
 ccaggggagc caatgggacc atctgtgaca accagaggga ctgccagccg 800
 gggctgtgct gtgccttcca gagaggcctg ctgttccttg tgtgcacacc 850
 cctgcccgtg gagggcgagc ttgccatga ccccgccagc cggcttcttg 900
 acctcatcac ctgggagcta gagcctgatg gagccttgga ccgatgccct 950
 tgtgccagtg gcctcctctg ccagccccac agccacagcc tgggtgatgt 1000
 gtgcaagccg accttcgtgg ggagccgtga ccaagatggg gagatcctgc 1050
 tgcccagaga ggtccccgat gagtatgaag ttggcagctt catggaggag 1100
 gtgcgccagg agctggagga cctggagagg agcctgactg aagagatggc 1150
 gctgggggag cctgcggctg ccgccgctgc actgctggga ggggaagaga 1200
 tttagatctg gaccaggctg tgggtagatg tgcaatagaa atagctaatt 1250
 tatttcccca ggtgtgtgct ttaggcgtgg gctgaccagg cttcttccta 1300
 catcttcttc ccagtaagtt tcccctctgg cttgacagca tgaggtgttg 1350
 tgcatttggt cagctcccc aggctgttct ccaggcttca cagtctggtg 1400
 cttgggagag tcaggcaggg ttaaactgca ggagcagttt gccaccctg 1450
 tccagattat tggctgcttt gcctctacca gttggcagac agccgtttgt 1500
 tctacatggc tttgataatt gtttgagggg aggagatgga aacaatgtgg 1550
 agtctccctc tgattggttt tggggaaatg tggagaagag tgccctgctt 1600
 tgcaaacatc aacctggcaa aaatgcaaca aatgaatttt ccacgcagtt 1650
 ctttccatgg gcataggtaa gctgtgcctt cagctgttgc agatgaaatg 1700
 ttctgttcac cctgcattac atgtgtttat tcatccagca gtgttgctca 1750

gctcctacct ctgtgccagg gcagcatttt catatccaag atcaattccc 1800
tctctcagca cagcctgggg aggggggtcat tgttctcctc gtccatcagg 1850
gatctcagag gctcagagac tgcaagctgc ttgccaagt cacacagcta 1900
gtgaagacca gagcagtttc atctggttgt gactctaagc tcagtgtctt 1950
ctccactacc ccacaccagc cttggtgcc ccaaaagtgc tccccaaaag 2000
gaaggagaat gggatttttc ttgaggcatg cacatctgga attaaggtca 2050
aactaattct cacatccctc taaaagtaaa ctactgttag gaacagcagt 2100
gttctcacag tgtggggcag ccgtccttct aatgaagaca atgatattga 2150
cactgtccct ctttggcagt tgcattagta actttgaaag gtatatgact 2200
gagcgtagca tacagggttaa cctgcagaaa cagtacttag gtaattgtag 2250
ggcgaggatt ataaatgaaa ttgcaaaat cacttagcag caactgaaga 2300
caattatcaa ccacgtggag aaaatcaaac cgagcagggc tgtgtgaaac 2350
atggttgtaa tatgcgactg cgaacactga actctacgcc actccacaaa 2400
tgatgttttc aggtgtcatg gactgttgcc accatgtatt catccagagt 2450
tcttaaagtt taaagttgca catgattgta taagcatgct ttctttgagt 2500
tttaaattat gtataaacat aagttgcatt tagaaatcaa gcataaatca 2550
cttcaactgc aaaaaaaaaa aaaaaaaaaa aaaaaa 2586

<210> 8

<211> 350

<212> PRT

<213> Homo Sapien

<400> 8

Met	Gln	Arg	Leu	Gly	Ala	Thr	Leu	Leu	Cys	Leu	Leu	Leu	Ala	Ala
1				5					10				15	
Ala	Val	Pro	Thr	Ala	Pro	Ala	Pro	Ala	Pro	Thr	Ala	Thr	Ser	Ala
				20					25				30	
Pro	Val	Lys	Pro	Gly	Pro	Ala	Leu	Ser	Tyr	Pro	Gln	Glu	Glu	Ala
				35					40				45	
Thr	Leu	Asn	Glu	Met	Phe	Arg	Glu	Val	Glu	Glu	Leu	Met	Glu	Asp
				50					55				60	
Thr	Gln	His	Lys	Leu	Arg	Ser	Ala	Val	Glu	Glu	Met	Glu	Ala	Glu
				65					70				75	
Glu	Ala	Ala	Ala	Lys	Ala	Ser	Ser	Glu	Val	Asn	Leu	Ala	Asn	Leu

	80	85	90
Pro Pro Ser Tyr	His Asn Glu Thr Asn	Thr Asp Thr Lys Val	Gly
	95	100	105
Asn Asn Thr Ile	His Val His Arg Glu	Ile His Lys Ile Thr	Asn
	110	115	120
Asn Gln Thr Gly	Gln Met Val Phe Ser	Glu Thr Val Ile Thr	Ser
	125	130	135
Val Gly Asp Glu	Glu Gly Arg Arg Ser	His Glu Cys Ile Ile	Asp
	140	145	150
Glu Asp Cys Gly	Pro Ser Met Tyr Cys	Gln Phe Ala Ser Phe	Gln
	155	160	165
Tyr Thr Cys Gln	Pro Cys Arg Gly Gln	Arg Met Leu Cys Thr	Arg
	170	175	180
Asp Ser Glu Cys	Cys Gly Asp Gln Leu	Cys Val Trp Gly His	Cys
	185	190	195
Thr Lys Met Ala	Thr Arg Gly Ser Asn	Gly Thr Ile Cys Asp	Asn
	200	205	210
Gln Arg Asp Cys	Gln Pro Gly Leu Cys	Cys Ala Phe Gln Arg	Gly
	215	220	225
Leu Leu Phe Pro	Val Cys Thr Pro Leu	Pro Val Glu Gly Glu	Leu
	230	235	240
Cys His Asp Pro	Ala Ser Arg Leu Leu	Asp Leu Ile Thr Trp	Glu
	245	250	255
Leu Glu Pro Asp	Gly Ala Leu Asp Arg	Cys Pro Cys Ala Ser	Gly
	260	265	270
Leu Leu Cys Gln	Pro His Ser His Ser	Leu Val Tyr Val Cys	Lys
	275	280	285
Pro Thr Phe Val	Gly Ser Arg Asp Gln	Asp Gly Glu Ile Leu	Leu
	290	295	300
Pro Arg Glu Val	Pro Asp Glu Tyr Glu	Val Gly Ser Phe Met	Glu
	305	310	315
Glu Val Arg Gln	Glu Leu Glu Asp Leu	Glu Arg Ser Leu Thr	Glu
	320	325	330
Glu Met Ala Leu	Gly Glu Pro Ala Ala	Ala Ala Ala Ala Leu	Leu
	335	340	345
Gly Gly Glu Glu	Ile		
	350		

<210> 9

<211> 1395
<212> DNA
<213> Homo Sapien

<400> 9
cggacgcgtg ggcggacgcg tgggggctgt gagaaagtgc caataaatatc 50
atcatgcaac cccacggccc accttgtgaa ctctcgtgc ccagggtga 100
tgtgctctt ccagggtac tcatcaaag gcctaataca acgttctgtc 150
ttcaatctgc aaatctatgg ggtcctgggg ctcttctgga cccttaactg 200
ggtactggcc ctgggccaat gcgtcctcgc tggagccttt gcctccttct 250
actgggcctt ccacaagccc caggacatcc ctaccttccc cttaatctct 300
gccttcatcc gcacactccg ttaccacact gggtcattgg catttggagc 350
cctcatcctg acccttgtgc agatagcccc ggtcatcttg gagtatattg 400
accacaagct cagaggagtg cagaaccctg tagcccgctg catcatgtgc 450
tgtttcaagt gctgcctctg gtgtctggaa aaatttatca agttcctaaa 500
ccgcaatgca tacatcatga tcgccatcta cgggaagaat ttctgtgtct 550
cagccaaaaa tgcgttcatg ctactcatgc gaaacattgt cagggtgggc 600
gtcctggaca aagtcacaga cctgctgctg ttctttggga agctgctggc 650
ggtcggaggc gtgggggtcc tgtccttctt ttttttctcc ggtcgcaccc 700
cggggctggg taaagacttt aagagcccc acctcaacta ttactggctg 750
cccatcatga cctccatcct gggggcctat gtcacgcca gcggcttctt 800
cagcgttttc ggcatgtgtg tggacacgct cttcctctgc ttcttgaag 850
acctggagcg gaacaacggc tccctggacc ggcctacta catgtccaag 900
agccttctaa agattctggg caagaagaac gaggcgcccc cggacaacaa 950
gaagaggaag aagtgcacgc tccggccctg atccaggact gcacccacc 1000
cccacgtcc agccatccaa cctcacttcg ccttacaggc ctccattttg 1050
tggtaaaaaa aggttttagg ccaggcgccg tggctcacgc ctgtaataca 1100
acactttgag aggctgaggc gggcggatca cctgagtcag gagttcgaga 1150
ccagcctggc caacatggtg aaacctcgt ctctattaaa aatacaaaaa 1200
ttagccgaga gtggtggcat gcacctgtca tcccagctac tcgggaggct 1250
gaggcaggag aatcgcttga acccgggagg cagaggttgc agtgagccga 1300

gatcgcgccca ctgcactcca acctgggtga cagactctgt ctccaaaaca 1350

aaacaaacaa acaaaaagat tttattaaag atattttgtt aactc 1395

<210> 10

<211> 321

<212> PRT

<213> Homo Sapien

<400> 10

Arg	Thr	Arg	Gly	Arg	Thr	Arg	Gly	Gly	Cys	Glu	Lys	Val	Pro	Ile
1				5					10					15

Asn	Thr	Ser	Cys	Asn	Pro	Thr	Ala	His	Leu	Val	Asn	Ser	Ser	Cys
				20					25					30

Pro	Gly	Leu	Met	Cys	Val	Phe	Gln	Gly	Tyr	Ser	Ser	Lys	Gly	Leu
				35					40					45

Ile	Gln	Arg	Ser	Val	Phe	Asn	Leu	Gln	Ile	Tyr	Gly	Val	Leu	Gly
				50					55					60

Leu	Phe	Trp	Thr	Leu	Asn	Trp	Val	Leu	Ala	Leu	Gly	Gln	Cys	Val
				65					70					75

Leu	Ala	Gly	Ala	Phe	Ala	Ser	Phe	Tyr	Trp	Ala	Phe	His	Lys	Pro
				80					85					90

Gln	Asp	Ile	Pro	Thr	Phe	Pro	Leu	Ile	Ser	Ala	Phe	Ile	Arg	Thr
				95					100					105

Leu	Arg	Tyr	His	Thr	Gly	Ser	Leu	Ala	Phe	Gly	Ala	Leu	Ile	Leu
				110					115					120

Thr	Leu	Val	Gln	Ile	Ala	Arg	Val	Ile	Leu	Glu	Tyr	Ile	Asp	His
				125					130					135

Lys	Leu	Arg	Gly	Val	Gln	Asn	Pro	Val	Ala	Arg	Cys	Ile	Met	Cys
				140					145					150

Cys	Phe	Lys	Cys	Cys	Leu	Trp	Cys	Leu	Glu	Lys	Phe	Ile	Lys	Phe
				155					160					165

Leu	Asn	Arg	Asn	Ala	Tyr	Ile	Met	Ile	Ala	Ile	Tyr	Gly	Lys	Asn
				170					175					180

Phe	Cys	Val	Ser	Ala	Lys	Asn	Ala	Phe	Met	Leu	Leu	Met	Arg	Asn
				185					190					195

Ile	Val	Arg	Val	Val	Val	Leu	Asp	Lys	Val	Thr	Asp	Leu	Leu	Leu
				200					205					210

Phe	Phe	Gly	Lys	Leu	Leu	Val	Val	Gly	Gly	Val	Gly	Val	Leu	Ser
				215					220					225

Phe	Phe	Phe	Phe	Ser	Gly	Arg	Ile	Pro	Gly	Leu	Gly	Lys	Asp	Phe
				230					235					240

Lys	Ser	Pro	His	Leu	Asn	Tyr	Tyr	Trp	Leu	Pro	Ile	Met	Thr	Ser
				245					250					255
Ile	Leu	Gly	Ala	Tyr	Val	Ile	Ala	Ser	Gly	Phe	Phe	Ser	Val	Phe
				260					265					270
Gly	Met	Cys	Val	Asp	Thr	Leu	Phe	Leu	Cys	Phe	Leu	Glu	Asp	Leu
				275					280					285
Glu	Arg	Asn	Asn	Gly	Ser	Leu	Asp	Arg	Pro	Tyr	Tyr	Met	Ser	Lys
				290					295					300
Ser	Leu	Leu	Lys	Ile	Leu	Gly	Lys	Lys	Asn	Glu	Ala	Pro	Pro	Asp
				305					310					315
Asn	Lys	Lys	Arg	Lys	Lys									
				320										

<210> 11
 <211> 1901
 <212> DNA
 <213> Homo Sapien

<400> 11
 gccccgcgcc cggcgccggg cgcccgaagc cgggagccac cgccatgggg 50
 gcctgcctgg gagcctgctc cctgctcagc tgcgcgtcct gcctctgcgg 100
 ctctgcccc tgcctcctgt gcagctgctg ccccgccagc cgcaactcca 150
 ccgtgagccg cctcatcttc acgttcttcc tcttcctggg ggtgctggtg 200
 tccatcatta tgctgagccc gggcgtggag agtcagctct acaagctgcc 250
 ctgggtgtgt gaggaggggg ccgggatccc caccgtcctg caggggccaca 300
 tcgactgtgg ctccctgctt ggctaccgag ctgtctaccg catgtgcttc 350
 gccacggcgg ctttcttctt cttctttttt accctgctca tgctctgcgt 400
 gagcagcagc cgggaccccc gggctgccat ccagaatggg ttttggttct 450
 ttaagttcct gatcctggtg ggcctcaccg tgggtgcctt ctacatccct 500
 gacggctcct tcaccaacat ctggttctac ttcggcgtcg tgggctcctt 550
 cctcttcata ctcattccagc tgggtgctgt catcgacttt gcgcactcct 600
 ggaaccagcg gtggctgggc aaggccgagg agtgcgattc ccgtgcctgg 650
 tacgcaggcc tcttcttctt cactctcctc ttctacttgc tgtcgatcgc 700
 ggccgtggcg ctgatgttca tgtactacac tgagcccagc ggctgccacg 750
 agggcaaggt cttcatcagc ctcaacctca ctttctgtgt ctgcgtgtcc 800
 atcgctgctg tcctgcccac ggtccaggac gccagccca actcgggtct 850

gctgcaggcc tcggatcatca ccctctacac catgtttgtc acctgggtcag 900
ccctatccag tatccctgaa cagaaatgca acccccattt gccaaaccag 950
ctgggcaacg agacagttgt ggcaggcccc gagggctatg agaccagtg 1000
gtgggatgcc ccgagcattg tgggcctcat catcttcctc ctgtgcaccc 1050
tcttcatcag tctgcgctcc tcagaccacc ggcaggtgaa cagcctgatg 1100
cagaccgagg agtgcccacc tatgctagac gccacacagc agcagcagca 1150
gcaggtggca gcctgtgagg gccgggcctt tgacaacgag caggacggcg 1200
tcacctacag ctactccttc ttccacttct gcctgggtgct ggcctcactg 1250
cacgtcatga tgacgctcac caactggtac aagcccgggtg agaccggaa 1300
gatgatcagc acgtggaccg ccgtgtgggt gaagatctgt gccagctggg 1350
cagggctgct cctctacctg tggaccctgg tagccccact cctcctgcgc 1400
aaccgcgact tcagctgagg cagcctcaca gcctgccatc tggtgccctc 1450
tgccacctgg tgccctcctg ctcggtgaca gccaacctgc cccctcccca 1500
caccaatcag ccaggctgag cccccacccc tgccccagct ccaggacctg 1550
cccctgagcc gggccttcta gtcgtagtgc cttcagggtc cgaggagcat 1600
caggctcctg cagagcccca tcccccgcc acaccacac ggtggagctg 1650
cctcttcctt cccctcctcc ctgttgccca tactcagcat ctcggatgaa 1700
agggctccct tgcctcagg ctccacggga gcggggctgc tggagagagc 1750
ggggaactcc caccacagtg gggcatccgg cactgaagcc ctggtgttcc 1800
tggtcacgtc ccccagggga ccctgcccc ttctggact tcgtgcctta 1850
ctgagtctct aagacttttt ctaataaaca agccagtgcg tgtaaaaaaa 1900

a 1901

<210> 12
<211> 457
<212> PRT
<213> Homo Sapien

<400> 12
Met Gly Ala Cys Leu Gly Ala Cys Ser Leu Leu Ser Cys Ala Ser
1 5 10 15
Cys Leu Cys Gly Ser Ala Pro Cys Ile Leu Cys Ser Cys Cys Pro
20 25 30
Ala Ser Arg Asn Ser Thr Val Ser Arg Leu Ile Phe Thr Phe Phe

35					40					45				
Leu	Phe	Leu	Gly	Val	Leu	Val	Ser	Ile	Ile	Met	Leu	Ser	Pro	Gly
				50					55					60
Val	Glu	Ser	Gln	Leu	Tyr	Lys	Leu	Pro	Trp	Val	Cys	Glu	Glu	Gly
				65					70					75
Ala	Gly	Ile	Pro	Thr	Val	Leu	Gln	Gly	His	Ile	Asp	Cys	Gly	Ser
				80					85					90
Leu	Leu	Gly	Tyr	Arg	Ala	Val	Tyr	Arg	Met	Cys	Phe	Ala	Thr	Ala
				95					100					105
Ala	Phe	Phe	Phe	Phe	Phe	Phe	Thr	Leu	Leu	Met	Leu	Cys	Val	Ser
				110					115					120
Ser	Ser	Arg	Asp	Pro	Arg	Ala	Ala	Ile	Gln	Asn	Gly	Phe	Trp	Phe
				125					130					135
Phe	Lys	Phe	Leu	Ile	Leu	Val	Gly	Leu	Thr	Val	Gly	Ala	Phe	Tyr
				140					145					150
Ile	Pro	Asp	Gly	Ser	Phe	Thr	Asn	Ile	Trp	Phe	Tyr	Phe	Gly	Val
				155					160					165
Val	Gly	Ser	Phe	Leu	Phe	Ile	Leu	Ile	Gln	Leu	Val	Leu	Leu	Ile
				170					175					180
Asp	Phe	Ala	His	Ser	Trp	Asn	Gln	Arg	Trp	Leu	Gly	Lys	Ala	Glu
				185					190					195
Glu	Cys	Asp	Ser	Arg	Ala	Trp	Tyr	Ala	Gly	Leu	Phe	Phe	Phe	Thr
				200					205					210
Leu	Leu	Phe	Tyr	Leu	Leu	Ser	Ile	Ala	Ala	Val	Ala	Leu	Met	Phe
				215					220					225
Met	Tyr	Tyr	Thr	Glu	Pro	Ser	Gly	Cys	His	Glu	Gly	Lys	Val	Phe
				230					235					240
Ile	Ser	Leu	Asn	Leu	Thr	Phe	Cys	Val	Cys	Val	Ser	Ile	Ala	Ala
				245					250					255
Val	Leu	Pro	Lys	Val	Gln	Asp	Ala	Gln	Pro	Asn	Ser	Gly	Leu	Leu
				260					265					270
Gln	Ala	Ser	Val	Ile	Thr	Leu	Tyr	Thr	Met	Phe	Val	Thr	Trp	Ser
				275					280					285
Ala	Leu	Ser	Ser	Ile	Pro	Glu	Gln	Lys	Cys	Asn	Pro	His	Leu	Pro
				290					295					300
Thr	Gln	Leu	Gly	Asn	Glu	Thr	Val	Val	Ala	Gly	Pro	Glu	Gly	Tyr
				305					310					315
Glu	Thr	Gln	Trp	Trp	Asp	Ala	Pro	Ser	Ile	Val	Gly	Leu	Ile	Ile

320	325	330
Phe Leu Leu Cys Thr Leu Phe Ile Ser Leu Arg Ser Ser Asp His		
335	340	345
Arg Gln Val Asn Ser Leu Met Gln Thr Glu Glu Cys Pro Pro Met		
350	355	360
Leu Asp Ala Thr Gln Gln Gln Gln Gln Gln Val Ala Ala Cys Glu		
365	370	375
Gly Arg Ala Phe Asp Asn Glu Gln Asp Gly Val Thr Tyr Ser Tyr		
380	385	390
Ser Phe Phe His Phe Cys Leu Val Leu Ala Ser Leu His Val Met		
395	400	405
Met Thr Leu Thr Asn Trp Tyr Lys Pro Gly Glu Thr Arg Lys Met		
410	415	420
Ile Ser Thr Trp Thr Ala Val Trp Val Lys Ile Cys Ala Ser Trp		
425	430	435
Ala Gly Leu Leu Leu Tyr Leu Trp Thr Leu Val Ala Pro Leu Leu		
440	445	450
Leu Arg Asn Arg Asp Phe Ser		
455		

<210> 13

<211> 1572

<212> DNA

<213> Homo Sapien

<400> 13

```

cgggcccagcc tggggcggcc ggccaggaac caccgcgttaa ggtgtcttct 50
ctttaggggat ggtgaggttg gaaaaagact cctgtaaccc tctccagga 100
tgaaccacct gccagaagac atggagaacg ctctcaccgg gagccagagc 150
tcccatgctt ctctgcgcaa tatccattcc atcaaccca cacaactcat 200
ggccaggatt gagtcctatg aaggaagggg aaagaaaggc atatctgatg 250
tcaggaggac tttctgtttg tttgtcacct ttgacctctt attcgtaaca 300
ttactgtgga taatagagtt aaatgtgaat ggaggcattg agaacacatt 350
agagaaggag gtgatgcagt atgactacta ttcttcatat tttgatatat 400
ttcttctggc agtttttcga tttaaagtgt taatacttgc atatgctgtg 450
tgcagactgc gccattggtg ggcaatagcg ttgacaacgg cagtgaccag 500
tgccttttta ctagcaaaag tgatcctttc gaagcttttc tctcaagggg 550

```

cttttggcta tgtgctgccc atcatttcat tcatccttgc ctggattgag 600
 acgtggttcc tggatttcaa agtggttacct caagaagcag aagaagaaaa 650
 cagactcctg atagttcagg atgcttcaga gagggcagca cttatacctg 700
 gtggtctttc tgatggtcag ttttattccc ctctgaatc cgaagcagga 750
 tctgaagaag ctgaagaaaa acaggacagt gagaaaccac ttttagaact 800
 atgagtacta cttttgttaa atgtgaaaaa ccttcacaga aagtcacga 850
 ggcaaaaaga ggcaggcagt ggagtctccc tgtcgacagt aaagttgaaa 900
 tggtgacgtc cactgctggc tttattgaac agctaataaa gatttattta 950
 ttgtaatacc tcacaaacgt tgtaccatat ccatgcacat ttagttgcct 1000
 gcctgtggct ggtaaggtaa tgtcatgatt catcctctct tcagtgaagac 1050
 tgagcctgat gtgttaacaa ataggtgaag aaagtcttgt gctgtattcc 1100
 taatcaaaag acttaatata ttgaagtaac acttttttag taagcaagat 1150
 acctttttat ttcaattcac agaatggaat ttttttgttt catgtctcag 1200
 atttattttg tatttctttt ttaacactct acatttccct tgttttttaa 1250
 ctcatgcaca tgtgctcttt gtacagtttt aaaaagtgtg ataaaatctg 1300
 acatgtcaat gtggctagtt ttatttttct tgttttgcat tatgtgtatg 1350
 gcctgaagtg ttggacttgc aaaaggggaa gaaaggaatt gcgaatacat 1400
 gtaaaatgtc accagacatt tgtattattt ttatcatgaa atcatgtttt 1450
 tctctgattg ttctgaaatg ttctaaatac tcttattttg aatgcacaaa 1500
 atgacttaaa ccattcatat catgtttcct ttgcgttcag ccaatttcaa 1550
 ttaaaatgaa ctaaattaaa aa 1572

<210> 14
 <211> 234
 <212> PRT
 <213> Homo Sapien

<400> 14
 Met Asn His Leu Pro Glu Asp Met Glu Asn Ala Leu Thr Gly Ser
 1 5 10 15
 Gln Ser Ser His Ala Ser Leu Arg Asn Ile His Ser Ile Asn Pro
 20 25 30
 Thr Gln Leu Met Ala Arg Ile Glu Ser Tyr Glu Gly Arg Glu Lys
 35 40 45
 Lys Gly Ile Ser Asp Val Arg Arg Thr Phe Cys Leu Phe Val Thr

50					55					60				
Phe	Asp	Leu	Leu	Phe	Val	Thr	Leu	Leu	Trp	Ile	Ile	Glu	Leu	Asn
				65					70					75
Val	Asn	Gly	Gly	Ile	Glu	Asn	Thr	Leu	Glu	Lys	Glu	Val	Met	Gln
				80					85					90
Tyr	Asp	Tyr	Tyr	Ser	Ser	Tyr	Phe	Asp	Ile	Phe	Leu	Leu	Ala	Val
				95					100					105
Phe	Arg	Phe	Lys	Val	Leu	Ile	Leu	Ala	Tyr	Ala	Val	Cys	Arg	Leu
				110					115					120
Arg	His	Trp	Trp	Ala	Ile	Ala	Leu	Thr	Thr	Ala	Val	Thr	Ser	Ala
				125					130					135
Phe	Leu	Leu	Ala	Lys	Val	Ile	Leu	Ser	Lys	Leu	Phe	Ser	Gln	Gly
				140					145					150
Ala	Phe	Gly	Tyr	Val	Leu	Pro	Ile	Ile	Ser	Phe	Ile	Leu	Ala	Trp
				155					160					165
Ile	Glu	Thr	Trp	Phe	Leu	Asp	Phe	Lys	Val	Leu	Pro	Gln	Glu	Ala
				170					175					180
Glu	Glu	Glu	Asn	Arg	Leu	Leu	Ile	Val	Gln	Asp	Ala	Ser	Glu	Arg
				185					190					195
Ala	Ala	Leu	Ile	Pro	Gly	Gly	Leu	Ser	Asp	Gly	Gln	Phe	Tyr	Ser
				200					205					210
Pro	Pro	Glu	Ser	Glu	Ala	Gly	Ser	Glu	Glu	Ala	Glu	Glu	Lys	Gln
				215					220					225
Asp	Ser	Glu	Lys	Pro	Leu	Leu	Glu	Leu						
				230										

<210> 15

<211> 2768

<212> DNA

<213> Homo Sapien

<400> 15

```

actcgaacgc agttgcttcg ggaccacagga cccctcggg cccgaccgc 50
caggaaagac tgaggccgcg gcctgccccg cccggctccc tgcgccgccg 100
ccgcctcccg ggacagaaga tgtgctccag ggtccctctg ctgctgccgc 150
tgctcctgct actggccctg gggcctgggg tgcagggctg cccatccggc 200
tgccagtgc gccagccaca gacagtcttc tgcactgcc gccaggggac 250
cacggtgccc cgagacgtgc caccgacac ggtggggctg tacgtctttg 300
agaacggcat caccatgctc gacgcaggca gctttgccg cctgccgggc 350

```

ctgcagctcc tggacctgtc acagaaccag atcgccagcc tgcccagcgg 400
 ggtcttccag ccactcgcca acctcagcaa cctggacctg acggccaaca 450
 ggctgcatga aatcaccaat gagaccttcc gtggcctgcg gcgcctcgag 500
 cgctctacc tgggcaagaa ccgcatccgc cacatccagc ctggtgcctt 550
 cgacacgctc gaccgcctcc tggagctcaa gctgcaggac aacgagctgc 600
 gggcactgcc cccgctgcg ctgccccgcc tgctgctgct ggacctcagc 650
 cacaacagcc tcctggccct ggagcccggc atcctggaca ctgccaacgt 700
 ggaggcgctg cggctggctg gtctggggct gcagcagctg gacgaggggc 750
 tcttcagccg cttgcgcaac ctccacgacc tggatgtgtc cgacaaccag 800
 ctggagcgag tgccacctgt gatccgaggc ctccggggcc tgacgcgcct 850
 gcggctggcc ggcaacaccc gcattgccc a gctgcggccc gaggacctgg 900
 ccggcctggc tgccctgcag gagctggatg tgagcaacct aagcctgcag 950
 gccctgectg gcgacctctc gggcctcttc ccccgectgc ggctgctggc 1000
 agctgcccgc aacccttca actgctgtg cccctgagc tggtttgcc 1050
 cctgggtgcg cgagagccac gtcacactgg ccagccctga ggagacgcgc 1100
 tgccacttcc cgccaagaa cgctggccgg ctgctcctgg agcttgacta 1150
 cgccgacttt ggctgcccag ccaccaccac cacagccaca gtgcccacca 1200
 cgaggcccggt ggtgcgggag cccacagcct tgtcttctag cttggctcct 1250
 acctggctta gcccacagc gccggccact gaggcccca gcccgccctc 1300
 cactgcccga ccgactgtag ggctgtccc ccagccccag gactgcccac 1350
 cgtccacctg cctcaatggg ggcacatgcc acctggggac acggcaccac 1400
 ctggcgtgct tgtgccccga aggcttcacg ggctgtact gtgagagcca 1450
 gatggggcag gggacacggc ccagccctac accagtcacg ccgaggccac 1500
 cacggtccct gacctgggc atcgagccgg tgagccccac ctccctgcgc 1550
 gtggggctgc agcgtacct ccaggggagc tccgtgcagc tcaggagcct 1600
 ccgtctcacc tatcgcaacc tatcggggcc tgataagcgg ctggtgacgc 1650
 tgcgactgcc tgctcgctc gctgagtaca cggtcaccca gctgcggccc 1700
 aacgccactt actccgtctg tgtcatgcct ttggggcccg ggcgggtgcc 1750

ggagggcgag gaggcctgcg gggaggccca tacaccccca gccgtccact 1800
 ccaaccacgc cccagtcacc caggcccgcg agggcaacct gccgtcctc 1850
 attgcgcccg ccctggccgc ggtgctcctg gccgcgctgg ctgcggtggg 1900
 ggcagcctac tgtgtgcggc gggggcgggc catggcagca gcggctcagg 1950
 acaaagggca ggtggggcca ggggctgggc ccctggaact ggaggagtg 2000
 aaggtccctt tggagccagg cccgaaggca acagaggcg gtggagaggc 2050
 cctgcccagc ggggtctgagt gtgaggtgcc actcatgggc ttcccagggc 2100
 ctggcctcca gtcaccctc cagcгааagc cctacatcta agccagagag 2150
 agacagggca gctggggccg ggctctcagc cagtgagatg gccagcccc 2200
 tcctgctgcc acaccacgta agttctcagt cccaacctcg gggatgtgtg 2250
 cagacagggc tgtgtgacca cagctgggccc ctgttcctc tggacctcg 2300
 tctcctcatc tgtgagatgc tgtggcccag ctgacgagcc ctaacgtccc 2350
 cagaaccgag tgcctatgag gacagtgtcc gccctgccct ccgcaacgtg 2400
 cagtccctgg gcacggcggg ccctgccatg tgctggtaac gcatgcctgg 2450
 gtcttctggg gctctccac tccaggcggg ccctgggggc cagtgaagga 2500
 agtcccggg aagagcagag ggagagcggg taggcggctg tgtgactcta 2550
 gtcttggccc caggaagcga aggaacaaaa gaaactggaa aggaagatgc 2600
 tttaggaaca tgttttgctt ttttaaaata tatatattta taagagatcc 2650
 tttccattt attctgggaa gatgtttttc aaactcagag acaaggactt 2700
 tggtttttgt aagacaaacg atgatatgaa ggccttttgt aagaaaaaat 2750
 aaaagatgaa gtgtgaaa 2768

<210> 16
 <211> 673
 <212> PRT
 <213> Homo Sapien

<400> 16
 Met Cys Ser Arg Val Pro Leu Leu Leu Pro Leu Leu Leu Leu Leu
 1 5 10 15
 Ala Leu Gly Pro Gly Val Gln Gly Cys Pro Ser Gly Cys Gln Cys
 20 25 30
 Ser Gln Pro Gln Thr Val Phe Cys Thr Ala Arg Gln Gly Thr Thr
 35 40 45

Val	Pro	Arg	Asp	Val	Pro	Pro	Asp	Thr	Val	Gly	Leu	Tyr	Val	Phe	50	55	60
Glu	Asn	Gly	Ile	Thr	Met	Leu	Asp	Ala	Gly	Ser	Phe	Ala	Gly	Leu	65	70	75
Pro	Gly	Leu	Gln	Leu	Leu	Asp	Leu	Ser	Gln	Asn	Gln	Ile	Ala	Ser	80	85	90
Leu	Pro	Ser	Gly	Val	Phe	Gln	Pro	Leu	Ala	Asn	Leu	Ser	Asn	Leu	95	100	105
Asp	Leu	Thr	Ala	Asn	Arg	Leu	His	Glu	Ile	Thr	Asn	Glu	Thr	Phe	110	115	120
Arg	Gly	Leu	Arg	Arg	Leu	Glu	Arg	Leu	Tyr	Leu	Gly	Lys	Asn	Arg	125	130	135
Ile	Arg	His	Ile	Gln	Pro	Gly	Ala	Phe	Asp	Thr	Leu	Asp	Arg	Leu	140	145	150
Leu	Glu	Leu	Lys	Leu	Gln	Asp	Asn	Glu	Leu	Arg	Ala	Leu	Pro	Pro	155	160	165
Leu	Arg	Leu	Pro	Arg	Leu	Leu	Leu	Leu	Asp	Leu	Ser	His	Asn	Ser	170	175	180
Leu	Leu	Ala	Leu	Glu	Pro	Gly	Ile	Leu	Asp	Thr	Ala	Asn	Val	Glu	185	190	195
Ala	Leu	Arg	Leu	Ala	Gly	Leu	Gly	Leu	Gln	Gln	Leu	Asp	Glu	Gly	200	205	210
Leu	Phe	Ser	Arg	Leu	Arg	Asn	Leu	His	Asp	Leu	Asp	Val	Ser	Asp	215	220	225
Asn	Gln	Leu	Glu	Arg	Val	Pro	Pro	Val	Ile	Arg	Gly	Leu	Arg	Gly	230	235	240
Leu	Thr	Arg	Leu	Arg	Leu	Ala	Gly	Asn	Thr	Arg	Ile	Ala	Gln	Leu	245	250	255
Arg	Pro	Glu	Asp	Leu	Ala	Gly	Leu	Ala	Ala	Leu	Gln	Glu	Leu	Asp	260	265	270
Val	Ser	Asn	Leu	Ser	Leu	Gln	Ala	Leu	Pro	Gly	Asp	Leu	Ser	Gly	275	280	285
Leu	Phe	Pro	Arg	Leu	Arg	Leu	Leu	Ala	Ala	Ala	Arg	Asn	Pro	Phe	290	295	300
Asn	Cys	Val	Cys	Pro	Leu	Ser	Trp	Phe	Gly	Pro	Trp	Val	Arg	Glu	305	310	315
Ser	His	Val	Thr	Leu	Ala	Ser	Pro	Glu	Glu	Thr	Arg	Cys	His	Phe	320	325	330

Pro	Pro	Lys	Asn	Ala	Gly	Arg	Leu	Leu	Leu	Glu	Leu	Asp	Tyr	Ala		335	340	345
Asp	Phe	Gly	Cys	Pro	Ala	Thr	Thr	Thr	Thr	Ala	Thr	Val	Pro	Thr		350	355	360
Thr	Arg	Pro	Val	Val	Arg	Glu	Pro	Thr	Ala	Leu	Ser	Ser	Ser	Leu		365	370	375
Ala	Pro	Thr	Trp	Leu	Ser	Pro	Thr	Ala	Pro	Ala	Thr	Glu	Ala	Pro		380	385	390
Ser	Pro	Pro	Ser	Thr	Ala	Pro	Pro	Thr	Val	Gly	Pro	Val	Pro	Gln		395	400	405
Pro	Gln	Asp	Cys	Pro	Pro	Ser	Thr	Cys	Leu	Asn	Gly	Gly	Thr	Cys		410	415	420
His	Leu	Gly	Thr	Arg	His	His	Leu	Ala	Cys	Leu	Cys	Pro	Glu	Gly		425	430	435
Phe	Thr	Gly	Leu	Tyr	Cys	Glu	Ser	Gln	Met	Gly	Gln	Gly	Thr	Arg		440	445	450
Pro	Ser	Pro	Thr	Pro	Val	Thr	Pro	Arg	Pro	Pro	Arg	Ser	Leu	Thr		455	460	465
Leu	Gly	Ile	Glu	Pro	Val	Ser	Pro	Thr	Ser	Leu	Arg	Val	Gly	Leu		470	475	480
Gln	Arg	Tyr	Leu	Gln	Gly	Ser	Ser	Val	Gln	Leu	Arg	Ser	Leu	Arg		485	490	495
Leu	Thr	Tyr	Arg	Asn	Leu	Ser	Gly	Pro	Asp	Lys	Arg	Leu	Val	Thr		500	505	510
Leu	Arg	Leu	Pro	Ala	Ser	Leu	Ala	Glu	Tyr	Thr	Val	Thr	Gln	Leu		515	520	525
Arg	Pro	Asn	Ala	Thr	Tyr	Ser	Val	Cys	Val	Met	Pro	Leu	Gly	Pro		530	535	540
Gly	Arg	Val	Pro	Glu	Gly	Glu	Glu	Ala	Cys	Gly	Glu	Ala	His	Thr		545	550	555
Pro	Pro	Ala	Val	His	Ser	Asn	His	Ala	Pro	Val	Thr	Gln	Ala	Arg		560	565	570
Glu	Gly	Asn	Leu	Pro	Leu	Leu	Ile	Ala	Pro	Ala	Leu	Ala	Ala	Val		575	580	585
Leu	Leu	Ala	Ala	Leu	Ala	Ala	Val	Gly	Ala	Ala	Tyr	Cys	Val	Arg		590	595	600
Arg	Gly	Arg	Ala	Met	Ala	Ala	Ala	Ala	Gln	Asp	Lys	Gly	Gln	Val		605	610	615

Gly	Pro	Gly	Ala	Gly	Pro	Leu	Glu	Leu	Glu	Gly	Val	Lys	Val	Pro
				620					625					630
Leu	Glu	Pro	Gly	Pro	Lys	Ala	Thr	Glu	Gly	Gly	Gly	Glu	Ala	Leu
				635					640					645
Pro	Ser	Gly	Ser	Glu	Cys	Glu	Val	Pro	Leu	Met	Gly	Phe	Pro	Gly
				650					655					660
Pro	Gly	Leu	Gln	Ser	Pro	Leu	His	Ala	Lys	Pro	Tyr	Ile		
				665					670					

<210> 17
 <211> 1672
 <212> DNA
 <213> Homo Sapien

<400> 17
 gcagcggcga ggcggcggtg gtggctgagt ccgtgggtggc agaggcgaag 50
 gcgacagctc atgcgggtcc ggatagggct gacgctgctg ctgtgtgcgg 100
 tgctgctgag cttggcctcg gcgtcctcgg atgaagaagg cagccaggat 150
 gaatccttag attccaagac tactttgaca tcagatgagt cagtaaagga 200
 ccatactact gcaggcagag tagttgctgg tcaaataattt cttgattcag 250
 aagaatctga attagaatcc tctattcaag aagaggaaga cagcctcaag 300
 agccaagagg gggaaagtgt cacagaagat atcagctttc tagagtctcc 350
 aaatccagaa aacaaggact atgaagagcc aaagaaagta cggaaaccag 400
 ctttgaccgc cattgaaggc acagcacatg gggagccctg ccacttcctt 450
 tttcttttcc tagataagga gtatgatgaa tgtacatcag atgggagggg 500
 agatggcaga ctgtgggtgtg ctacaaccta tgactacaaa gcagatgaaa 550
 agtggggctt ttgtgaaact gaagaagagg ctgctaagag acggcagatg 600
 caggaagcag aaatgatgta tcaaactgga atgaaaatcc ttaatggaag 650
 caataagaaa agccaaaaaa gagaagcata tcggtatctc caaaaggcag 700
 caagcatgaa ccataccaaa gccctggaga gagtgtcata tgctctttta 750
 tttggtgatt acttgccaca gaatatccag gcagcgagag agatgtttga 800
 gaagctgact gaggaaggct ctccaagggt acagactgct cttggctttc 850
 tgtatgcctc tggacttggg gttaattcaa gtcaggcaaa ggctcttgta 900
 tattatacat ttggagctct tgggggcaat ctaatagccc acatggtttt 950
 ggtaagtaga ctttagtgga aggctaataa tattaacatc agaagaattt 1000

gtggtttata ggggccacaa ctttttcagc tttcatgac cagatttgct 1050
 tgtattaaga ccaaattatc agttgaactt ctttcaaatt cttgttaatg 1100
 gatataacac atggaatcta catgtaaatg aaagttggtg gagtcacaa 1150
 tttttcttta aaatgattag tttggctgat tgcccctaaa aagagagatc 1200
 tgataaatgg ctctttttta attttctctg agttggaatt gtcagaatca 1250
 ttttttacat tagattatca taattttaaa aatttttctt tagtttttca 1300
 aaattttgta aatggtggct atagaaaaac aacatgaaat attatacaat 1350
 attttgcaac aatgccctaa gaattgttaa aattcatgga gttatttggtg 1400
 cagaatgact ccagagagct ctactttctg ttttttactt ttcatgattg 1450
 gctgtcttcc catttattct ggtcatttat tgctagtgc actgtgcctg 1500
 cttccagtag tctcattttc cctattttgc taatttgta ctttttcttt 1550
 gctaatttgg aagattaact catttttaat aaaattatgt ctaagattaa 1600
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1650
 aaaaaaaaaa aaaaaaaaaa aa 1672

<210> 18
 <211> 301
 <212> PRT
 <213> Homo Sapien

<400> 18
 Met Arg Val Arg Ile Gly Leu Thr Leu Leu Leu Cys Ala Val Leu
 1 5 10 15
 Leu Ser Leu Ala Ser Ala Ser Ser Asp Glu Glu Gly Ser Gln Asp
 20 25 30
 Glu Ser Leu Asp Ser Lys Thr Thr Leu Thr Ser Asp Glu Ser Val
 35 40 45
 Lys Asp His Thr Thr Ala Gly Arg Val Val Ala Gly Gln Ile Phe
 50 55 60
 Leu Asp Ser Glu Glu Ser Glu Leu Glu Ser Ser Ile Gln Glu Glu
 65 70 75
 Glu Asp Ser Leu Lys Ser Gln Glu Gly Glu Ser Val Thr Glu Asp
 80 85 90
 Ile Ser Phe Leu Glu Ser Pro Asn Pro Glu Asn Lys Asp Tyr Glu
 95 100 105
 Glu Pro Lys Lys Val Arg Lys Pro Ala Leu Thr Ala Ile Glu Gly
 110 115 120

Thr	Ala	His	Gly	Glu	Pro	Cys	His	Phe	Pro	Phe	Leu	Phe	Leu	Asp	
				125					130					135	
Lys	Glu	Tyr	Asp	Glu	Cys	Thr	Ser	Asp	Gly	Arg	Glu	Asp	Gly	Arg	
				140					145					150	
Leu	Trp	Cys	Ala	Thr	Thr	Tyr	Asp	Tyr	Lys	Ala	Asp	Glu	Lys	Trp	
				155					160					165	
Gly	Phe	Cys	Glu	Thr	Glu	Glu	Glu	Ala	Ala	Lys	Arg	Arg	Gln	Met	
				170					175					180	
Gln	Glu	Ala	Glu	Met	Met	Tyr	Gln	Thr	Gly	Met	Lys	Ile	Leu	Asn	
				185					190					195	
Gly	Ser	Asn	Lys	Lys	Ser	Gln	Lys	Arg	Glu	Ala	Tyr	Arg	Tyr	Leu	
				200					205					210	
Gln	Lys	Ala	Ala	Ser	Met	Asn	His	Thr	Lys	Ala	Leu	Glu	Arg	Val	
				215					220					225	
Ser	Tyr	Ala	Leu	Leu	Phe	Gly	Asp	Tyr	Leu	Pro	Gln	Asn	Ile	Gln	
				230					235					240	
Ala	Ala	Arg	Glu	Met	Phe	Glu	Lys	Leu	Thr	Glu	Glu	Gly	Ser	Pro	
				245					250					255	
Lys	Gly	Gln	Thr	Ala	Leu	Gly	Phe	Leu	Tyr	Ala	Ser	Gly	Leu	Gly	
				260					265					270	
Val	Asn	Ser	Ser	Gln	Ala	Lys	Ala	Leu	Val	Tyr	Tyr	Thr	Phe	Gly	
				275					280					285	
Ala	Leu	Gly	Gly	Asn	Leu	Ile	Ala	His	Met	Val	Leu	Val	Ser	Arg	
				290					295					300	

Leu

<210> 19

<211> 1508

<212> DNA

<213> Homo Sapien

<400> 19

aattcagatt ttaagcccat tctgcagtgg aatttcatga actagcaaga 50

ggacaccatc ttcttgtatt atacaagaaa ggagtgtacc tatcacacac 100

agggggaaaa atgctctttt ggggtgctagg cctcctaata ctctgtgggt 150

ttctgtggac tcgtaaagga aaactaaaga ttgaagacat cactgataag 200

tacatttttta tcaactggatg tgactcgggc tttggaaact tggcagccag 250

aacttttgat aaaaagggat ttcagtgaat cgctgcctgt ctgactgaat 300

caggatcaac agcttttaaag gcagaaacct cagagagact tcgtactgtg 350
cttctggatg tgaccgaccc agagaatgtc aagaggactg cccagtgggt 400
gaagaaccaa gttggggaga aaggtctctg ggggtctgatc aataatgctg 450
gtgttcccg cgtgctggct cccactgact ggctgacact agaggactac 500
agagaaccta ttgaagtga cctgtttgga ctcactcagt tgacactaaa 550
tatgcttctt ttggtcaaga aagctcaagg gagagttatt aatgtctcca 600
gtgttggagg tcgccttgca atcgttggag ggggctatac tccatccaaa 650
tatgcagtgg aaggtttcaa tgacagctta agacgggaca tgaaagcttt 700
tggtgtgcac gtctcatgca ttgaaccagg attgttcaaa acaaacttgg 750
cagatccagt aaaggttaatt gaaaaaaaaac tcgccatttg ggagcagctg 800
tctccagaca tcaaacaaca atatggagaa gggttacattg aaaaaagtct 850
agacaaactg aaaggcaata aatcctatgt gaacatggac ctctctccgg 900
tggttagagt catggaccac gctctaacaa gtctcttccc taagactcat 950
tatgccgctg gaaaagatgc caaaattttc tggatacctc tgtctcacat 1000
gccagcagct ttgcaagact ttttattgtt gaaacagaaa gcagagctgg 1050
ctaattccaa ggcagtgtga ctacagtaac cacaaatgtc tcctccaggc 1100
tatgaaattg gccgatttca agaacacatc tccttttcaa cccatttctt 1150
tatctgtctc aacctggact catttagatc gtgcttattt ggattgcaaa 1200
agggagtccc accatcgctg gtggtatccc agggtccttg ctcaagtttt 1250
ctttgaaaag gagggctgga atggtacatc acataggcaa gtcttgcctt 1300
gtatttaggc tttgcctgct tgggtgtgat taagggaat tgaaagactt 1350
gcccattcaa aatgatcttt accgtggcct gcccctatgct tatgggtccc 1400
agcatttaca gtaacttgtg aatgttaagt atcatctctt atctaaatat 1450
taaaagataa gtcaacccaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1500

aaaaaaaa 1508

<210> 20

<211> 319

<212> PRT

<213> Homo Sapien

<400> 20

Met Leu Phe Trp Val Leu Gly Leu Leu Ile Leu Cys Gly Phe Leu

1	5	10	15
Trp Thr Arg Lys Gly	Lys Leu Lys Ile Glu Asp Ile Thr Asp Lys		
20	25	30	
Tyr Ile Phe Ile Thr Gly Cys Asp Ser Gly Phe Gly Asn Leu Ala			
35	40	45	
Ala Arg Thr Phe Asp Lys Lys Gly Phe His Val Ile Ala Ala Cys			
50	55	60	
Leu Thr Glu Ser Gly Ser Thr Ala Leu Lys Ala Glu Thr Ser Glu			
65	70	75	
Arg Leu Arg Thr Val Leu Leu Asp Val Thr Asp Pro Glu Asn Val			
80	85	90	
Lys Arg Thr Ala Gln Trp Val Lys Asn Gln Val Gly Glu Lys Gly			
95	100	105	
Leu Trp Gly Leu Ile Asn Asn Ala Gly Val Pro Gly Val Leu Ala			
110	115	120	
Pro Thr Asp Trp Leu Thr Leu Glu Asp Tyr Arg Glu Pro Ile Glu			
125	130	135	
Val Asn Leu Phe Gly Leu Ile Ser Val Thr Leu Asn Met Leu Pro			
140	145	150	
Leu Val Lys Lys Ala Gln Gly Arg Val Ile Asn Val Ser Ser Val			
155	160	165	
Gly Gly Arg Leu Ala Ile Val Gly Gly Gly Tyr Thr Pro Ser Lys			
170	175	180	
Tyr Ala Val Glu Gly Phe Asn Asp Ser Leu Arg Arg Asp Met Lys			
185	190	195	
Ala Phe Gly Val His Val Ser Cys Ile Glu Pro Gly Leu Phe Lys			
200	205	210	
Thr Asn Leu Ala Asp Pro Val Lys Val Ile Glu Lys Lys Leu Ala			
215	220	225	
Ile Trp Glu Gln Leu Ser Pro Asp Ile Lys Gln Gln Tyr Gly Glu			
230	235	240	
Gly Tyr Ile Glu Lys Ser Leu Asp Lys Leu Lys Gly Asn Lys Ser			
245	250	255	
Tyr Val Asn Met Asp Leu Ser Pro Val Val Glu Cys Met Asp His			
260	265	270	
Ala Leu Thr Ser Leu Phe Pro Lys Thr His Tyr Ala Ala Gly Lys			
275	280	285	
Asp Ala Lys Ile Phe Trp Ile Pro Leu Ser His Met Pro Ala Ala			

	290		295		300
Leu	Gln	Asp	Phe	Leu	Leu
				Leu	Lys
				Gln	Lys
				Ala	Glu
				Leu	Ala
				Asn	
	305		310		315

Pro Lys Ala Val

<210> 21
 <211> 1849
 <212> DNA
 <213> Homo Sapien

<400> 21
 ctgaggcggc ggtagcatgg aggggggagag tacgtcggcg gtgctctcgg 50
 gctttgtgct cggcgccactc gctttccagc acctcaacac ggactcggac 100
 acggaagggtt ttctttcttg ggaagtaaaa ggtgaagcca agaacagcat 150
 tactgattcc caaatggatg atgttgaagt tgtttataca attgacattc 200
 agaaatatat tccatgctat cagcttttta gcttttataa ttcttcaggc 250
 gaagtaaata agcaagcact gaagaaaata ttatcaaata tcaaaaagaa 300
 tgtggttaggt tggtaaaaat tccgtcgtca ttcagatcag atcatgacgt 350
 ttagagagag gctgcttcac aaaaacttgc aggagcattt ttcaaaccac 400
 gaccttggtt ttctgctatt aacaccaagt ataataacag aaagctgctc 450
 tactcatcga ctggaacatt ccttatataa acctcaaaaa ggactttttc 500
 acaggggtacc tttagtgggt gccaatctgg gcatgtctga acaactgggt 550
 tataaaactg tatcaggttc ctgtatgtcc actgggttta gccgagcagt 600
 acaaacacac agctctaaat tttttgaaga agatggatcc ttaaaggagg 650
 tacataagat aatgaaatg tatgcttcat tacaagagga attaaagagt 700
 atatgcaaaa aagtggaaga cagtgaacaa gcagtagata aactagtaaa 750
 ggatgtaaac agattaaaac gagaaattga gaaaaggaga ggagcacaga 800
 ttcaggcagc aagagagaag aacatccaaa aagaccctca ggagaacatt 850
 tttctttgtc aggcattacg gacctttttt ccaaattctg aatttcttca 900
 ttcatgtgtt atgtctttta aaaatagaca tgtttctaaa agtagctgta 950
 actacaacca ccctctcgat gtagtagaca atctgacctt aatggtagaa 1000
 cacactgaca ttcttgaagc tagtcagct agtacaccac aaatcattaa 1050
 gcataaagcc ttagacttag atgacagatg gcaattcaag agatctcggg 1100

tgttagatac acaagacaaa cgatctaaag caaatactgg tagtagtaac 1150
 caagataaag catccaaaat gagcagccca gaaacagatg aagaaattga 1200
 aaagatgaag ggttttggtg aatattcacg gtctcctaca ttttgatcct 1250
 ttttaacctta caaggagatt tttttatttg gctgatgggt aaagccaaac 1300
 atttctattg tttttactat gttgagctac ttgcagtaag ttcatttggt 1350
 tttactatgt tcacctgttt gcagtaatac acagataact cttagtgcac 1400
 ttacttcaca aagtactttt tcaaacatca gatgctttta tttccaaacc 1450
 tttttttcac ctttcactaa gttggtgagg ggaaggctta cacagacaca 1500
 ttcttttagaa ttggaaaagt gagaccaggc acagtggctc acacctgtaa 1550
 tcccagcact tagggaagac aagtcaggag gattgattga agctaggagt 1600
 tagagaccag cctgggcaac gtattgagac catgtctatt aaaaaataaa 1650
 atggaaaagc aagaatagcc ttattttcaa aatatggaaa gaaatttata 1700
 tgaaaattta tctgagtcac taaaattctc ctttaagtga acttttttag 1750
 aagtacatta tggctagagt tgccagataa aatgctggat atcatgcaat 1800
 aaatttgcaa aacatcatct aaaattttaa aaaaaaaaaa aaaaaaaaaa 1849

<210> 22

<211> 409

<212> PRT

<213> Homo Sapien

<400> 22

Met	Glu	Gly	Glu	Ser	Thr	Ser	Ala	Val	Leu	Ser	Gly	Phe	Val	Leu
1				5					10					15
Gly	Ala	Leu	Ala	Phe	Gln	His	Leu	Asn	Thr	Asp	Ser	Asp	Thr	Glu
				20					25					30
Gly	Phe	Leu	Leu	Gly	Glu	Val	Lys	Gly	Glu	Ala	Lys	Asn	Ser	Ile
				35					40					45
Thr	Asp	Ser	Gln	Met	Asp	Asp	Val	Glu	Val	Val	Tyr	Thr	Ile	Asp
				50					55					60
Ile	Gln	Lys	Tyr	Ile	Pro	Cys	Tyr	Gln	Leu	Phe	Ser	Phe	Tyr	Asn
				65					70					75
Ser	Ser	Gly	Glu	Val	Asn	Glu	Gln	Ala	Leu	Lys	Lys	Ile	Leu	Ser
				80					85					90
Asn	Val	Lys	Lys	Asn	Val	Val	Gly	Trp	Tyr	Lys	Phe	Arg	Arg	His
				95					100					105

Ser	Asp	Gln	Ile	Met	Thr	Phe	Arg	Glu	Arg	Leu	Leu	His	Lys	Asn
				110					115					120
Leu	Gln	Glu	His	Phe	Ser	Asn	Gln	Asp	Leu	Val	Phe	Leu	Leu	Leu
				125					130					135
Thr	Pro	Ser	Ile	Ile	Thr	Glu	Ser	Cys	Ser	Thr	His	Arg	Leu	Glu
				140					145					150
His	Ser	Leu	Tyr	Lys	Pro	Gln	Lys	Gly	Leu	Phe	His	Arg	Val	Pro
				155					160					165
Leu	Val	Val	Ala	Asn	Leu	Gly	Met	Ser	Glu	Gln	Leu	Gly	Tyr	Lys
				170					175					180
Thr	Val	Ser	Gly	Ser	Cys	Met	Ser	Thr	Gly	Phe	Ser	Arg	Ala	Val
				185					190					195
Gln	Thr	His	Ser	Ser	Lys	Phe	Phe	Glu	Glu	Asp	Gly	Ser	Leu	Lys
				200					205					210
Glu	Val	His	Lys	Ile	Asn	Glu	Met	Tyr	Ala	Ser	Leu	Gln	Glu	Glu
				215					220					225
Leu	Lys	Ser	Ile	Cys	Lys	Lys	Val	Glu	Asp	Ser	Glu	Gln	Ala	Val
				230					235					240
Asp	Lys	Leu	Val	Lys	Asp	Val	Asn	Arg	Leu	Lys	Arg	Glu	Ile	Glu
				245					250					255
Lys	Arg	Arg	Gly	Ala	Gln	Ile	Gln	Ala	Ala	Arg	Glu	Lys	Asn	Ile
				260					265					270
Gln	Lys	Asp	Pro	Gln	Glu	Asn	Ile	Phe	Leu	Cys	Gln	Ala	Leu	Arg
				275					280					285
Thr	Phe	Phe	Pro	Asn	Ser	Glu	Phe	Leu	His	Ser	Cys	Val	Met	Ser
				290					295					300
Leu	Lys	Asn	Arg	His	Val	Ser	Lys	Ser	Ser	Cys	Asn	Tyr	Asn	His
				305					310					315
His	Leu	Asp	Val	Val	Asp	Asn	Leu	Thr	Leu	Met	Val	Glu	His	Thr
				320					325					330
Asp	Ile	Pro	Glu	Ala	Ser	Pro	Ala	Ser	Thr	Pro	Gln	Ile	Ile	Lys
				335					340					345
His	Lys	Ala	Leu	Asp	Leu	Asp	Asp	Arg	Trp	Gln	Phe	Lys	Arg	Ser
				350					355					360
Arg	Leu	Leu	Asp	Thr	Gln	Asp	Lys	Arg	Ser	Lys	Ala	Asn	Thr	Gly
				365					370					375
Ser	Ser	Asn	Gln	Asp	Lys	Ala	Ser	Lys	Met	Ser	Ser	Pro	Glu	Thr
				380					385					390

Asp Glu Glu Ile Glu Lys Met Lys Gly Phe Gly Glu Tyr Ser Arg
395 400 405

Ser Pro Thr Phe

<210> 23
<211> 2651
<212> DNA
<213> Homo Sapien

<400> 23
ggcacagccg cgcgggcggag ggcagagtca gccgagccga gtccagccgg 50
acgagcggac cagcgcaggg cagcccaagc agcgcgcagc gaacgcccgc 100
cgccgcccac accctctgcg gtccccgcgg cgctgccac ccttcctcc 150
ttccccgagt ccccgctcgc ccggccagtc agcttgccgg gttcgctgcc 200
ccgcgaaacc ccgaggtcac cagcccgccg ctctgcttcc ctgggcccgc 250
cgccgcctcc acgcctcct tctccctgg cccggcgctt ggcaccgggg 300
accgttgctt gacgcgaggg ccagctctac ttttcgcccc gcgtctcctc 350
cgctgctcgc cctcttccac caactccaac tccttctccc tccagctcca 400
ctcgttagtc cccgactccg ccagccctcg gccgctgcc gtagcgccgc 450
ttcccgctcg gtcccaaagg tgggaacgcg tccgccccgg ccgcacccat 500
ggcacgggtc ggcttgcccg cgcttctctg caccctggca gtgctcagcg 550
ccgcgctgct ggctgccgag ctcaagtcga aaagttgctc ggaagtgcga 600
cgtctttacg tgtccaaagg cttcaacaag aacgatgccc ccctccacga 650
gatcaacggt gatcatttga agatctgtcc ccagggttct acctgctgct 700
ctcaagagat ggaggagaag tacagcctgc aaagtaaaga tgatttcaa 750
agtgtggtca gcgaacagtg caatcatttg caagctgtct ttgcttcacg 800
ttacaagaag tttgatgaat tcttcaaaga actacttgaa aatgcagaga 850
aatccctgaa tgatatgttt gtgaagacat atggccattt atacatgcaa 900
aattctgagc tatttaaaga tctcttcgta gagttgaaac gttactacgt 950
gggtgggaaat gtgaacctgg aagaaatgct aaatgacttc tgggctcgcc 1000
tcctggagcg gatgttccgc ctggtgaact cccagtacca ctttacagat 1050
gagtatctgg aatgtgtgag caagtatacg gagcagctga agcccttcgg 1100
agatgtccct cgcaaattga agctccaggt tactcgtgct tttgtagcag 1150

cccgtacttt cgctcaaggc ttagcggttg cgggagatgt cgtgagcaag 1200
 gtctccgtgg taaacccac agcccagtgt acccatgccc tgttgaagat 1250
 gatctactgc tcccactgcc ggggtctcgt gactgtgaag ccatgttaca 1300
 actactgctc aaacatcatg agaggctggt tggccaacca aggggatctc 1350
 gattttgaat ggaacaattt catagatgct atgctgatgg tggcagagag 1400
 gctagagggt cctttcaaca ttgaatcggc catggatccc atcgatgtga 1450
 agatttctga tgctattatg aacatgcagg ataatagtgt tcaagtgtct 1500
 cagaaggttt tccagggatg tggaccccc aagcccctcc cagctggacg 1550
 aatttctcgt tccatctctg aaagtgcctt cagtgtcgc ttcagaccac 1600
 atccccga ggaacgcca accacagcag ctggcactag tttggaccga 1650
 ctggttactg atgtcaagga gaaactgaaa caggccaaga aattctggtc 1700
 ctcccttcg agcaacgttt gcaacgatga gaggatggct gcaggaaacg 1750
 gcaatgagga tgactgttg aatgggaaag gcaaaagcag gtacctgttt 1800
 gcagtgcag gaaatggatt agccaaccag ggcaacaacc cagaggcca 1850
 ggttgacacc agcaaaccag acatactgat ccttcgtcaa atcatggctc 1900
 ttcgagtgat gaccagcaag atgaagaatg catacaatgg gaacgacgtg 1950
 gacttctttg atatcagtga tgaaagtagt ggagaaggaa gtggaagtgg 2000
 ctgtgagtat cagcagtgcc cttcagagtt tgactacaat gccactgacc 2050
 atgtgggaa gagtgccaat gagaaagccg acagtgtggt tgtccgtcct 2100
 ggggcacagg cctacctcct cactgtcttc tgcattctgt tcttggttat 2150
 gcagagagag tggagataat tctcaaactc tgagaaaaag tgttcatcaa 2200
 aaagttaaaa ggcaccagtt atcacttttc taccatccta gtgactttgc 2250
 tttttaaatg aatggacaac aatgtacagt ttttactatg tggccactgg 2300
 ttttaagaagt gctgactttg ttttctcatt cagttttggg aggaaaaggg 2350
 actgtgcatt gagttgggtc ctgctcccc aaaccatggt aaacgtgggt 2400
 aacagtgtag gtacagaact atagttagtt gtgcatttgt gattttatca 2450
 ctctattatt tgtttgtatg ttttttctc atttcgtttg tgggtttttt 2500
 tttccaaactg tgatctcgcc ttgtttctta caagcaaacc agggtccttt 2550
 cttggcacgt aacatgtacg tatttctgaa atattaaata gctgtacaga 2600

agcaggtttt atttatcatg ttatcttatt aaaagaaaaa gcccaaaaag 2650

c 2651

<210> 24

<211> 556

<212> PRT

<213> Homo Sapien

<400> 24

Met	Ala	Arg	Phe	Gly	Leu	Pro	Ala	Leu	Leu	Cys	Thr	Leu	Ala	Val
1				5					10					15

Leu	Ser	Ala	Ala	Leu	Leu	Ala	Ala	Glu	Leu	Lys	Ser	Lys	Ser	Cys
				20					25					30

Ser	Glu	Val	Arg	Arg	Leu	Tyr	Val	Ser	Lys	Gly	Phe	Asn	Lys	Asn
				35					40					45

Asp	Ala	Pro	Leu	His	Glu	Ile	Asn	Gly	Asp	His	Leu	Lys	Ile	Cys
				50					55					60

Pro	Gln	Gly	Ser	Thr	Cys	Cys	Ser	Gln	Glu	Met	Glu	Glu	Lys	Tyr
				65					70					75

Ser	Leu	Gln	Ser	Lys	Asp	Asp	Phe	Lys	Ser	Val	Val	Ser	Glu	Gln
				80					85					90

Cys	Asn	His	Leu	Gln	Ala	Val	Phe	Ala	Ser	Arg	Tyr	Lys	Lys	Phe
				95					100					105

Asp	Glu	Phe	Phe	Lys	Glu	Leu	Leu	Glu	Asn	Ala	Glu	Lys	Ser	Leu
				110					115					120

Asn	Asp	Met	Phe	Val	Lys	Thr	Tyr	Gly	His	Leu	Tyr	Met	Gln	Asn
				125					130					135

Ser	Glu	Leu	Phe	Lys	Asp	Leu	Phe	Val	Glu	Leu	Lys	Arg	Tyr	Tyr
				140					145					150

Val	Val	Gly	Asn	Val	Asn	Leu	Glu	Glu	Met	Leu	Asn	Asp	Phe	Trp
				155					160					165

Ala	Arg	Leu	Leu	Glu	Arg	Met	Phe	Arg	Leu	Val	Asn	Ser	Gln	Tyr
				170					175					180

His	Phe	Thr	Asp	Glu	Tyr	Leu	Glu	Cys	Val	Ser	Lys	Tyr	Thr	Glu
				185					190					195

Gln	Leu	Lys	Pro	Phe	Gly	Asp	Val	Pro	Arg	Lys	Leu	Lys	Leu	Gln
				200					205					210

Val	Thr	Arg	Ala	Phe	Val	Ala	Ala	Arg	Thr	Phe	Ala	Gln	Gly	Leu
				215					220					225

Ala	Val	Ala	Gly	Asp	Val	Val	Ser	Lys	Val	Ser	Val	Val	Asn	Pro
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

				230					235					240
Thr	Ala	Gln	Cys	Thr	His	Ala	Leu	Leu	Lys	Met	Ile	Tyr	Cys	Ser
				245					250					255
His	Cys	Arg	Gly	Leu	Val	Thr	Val	Lys	Pro	Cys	Tyr	Asn	Tyr	Cys
				260					265					270
Ser	Asn	Ile	Met	Arg	Gly	Cys	Leu	Ala	Asn	Gln	Gly	Asp	Leu	Asp
				275					280					285
Phe	Glu	Trp	Asn	Asn	Phe	Ile	Asp	Ala	Met	Leu	Met	Val	Ala	Glu
				290					295					300
Arg	Leu	Glu	Gly	Pro	Phe	Asn	Ile	Glu	Ser	Val	Met	Asp	Pro	Ile
				305					310					315
Asp	Val	Lys	Ile	Ser	Asp	Ala	Ile	Met	Asn	Met	Gln	Asp	Asn	Ser
				320					325					330
Val	Gln	Val	Ser	Gln	Lys	Val	Phe	Gln	Gly	Cys	Gly	Pro	Pro	Lys
				335					340					345
Pro	Leu	Pro	Ala	Gly	Arg	Ile	Ser	Arg	Ser	Ile	Ser	Glu	Ser	Ala
				350					355					360
Phe	Ser	Ala	Arg	Phe	Arg	Pro	His	His	Pro	Glu	Glu	Arg	Pro	Thr
				365					370					375
Thr	Ala	Ala	Gly	Thr	Ser	Leu	Asp	Arg	Leu	Val	Thr	Asp	Val	Lys
				380					385					390
Glu	Lys	Leu	Lys	Gln	Ala	Lys	Lys	Phe	Trp	Ser	Ser	Leu	Pro	Ser
				395					400					405
Asn	Val	Cys	Asn	Asp	Glu	Arg	Met	Ala	Ala	Gly	Asn	Gly	Asn	Glu
				410					415					420
Asp	Asp	Cys	Trp	Asn	Gly	Lys	Gly	Lys	Ser	Arg	Tyr	Leu	Phe	Ala
				425					430					435
Val	Thr	Gly	Asn	Gly	Leu	Ala	Asn	Gln	Gly	Asn	Asn	Pro	Glu	Val
				440					445					450
Gln	Val	Asp	Thr	Ser	Lys	Pro	Asp	Ile	Leu	Ile	Leu	Arg	Gln	Ile
				455					460					465
Met	Ala	Leu	Arg	Val	Met	Thr	Ser	Lys	Met	Lys	Asn	Ala	Tyr	Asn
				470					475					480
Gly	Asn	Asp	Val	Asp	Phe	Phe	Asp	Ile	Ser	Asp	Glu	Ser	Ser	Gly
				485					490					495
Glu	Gly	Ser	Gly	Ser	Gly	Cys	Glu	Tyr	Gln	Gln	Cys	Pro	Ser	Glu
				500					505					510
Phe	Asp	Tyr	Asn	Ala	Thr	Asp	His	Ala	Gly	Lys	Ser	Ala	Asn	Glu

	515		520		525									
Lys	Ala	Asp	Ser	Ala	Gly	Val	Arg	Pro	Gly	Ala	Gln	Ala	Tyr	Leu
	530				535				540					
Leu	Thr	Val	Phe	Cys	Ile	Leu	Phe	Leu	Val	Met	Gln	Arg	Glu	Trp
	545					550							555	

Arg

<210> 25
 <211> 870
 <212> DNA
 <213> Homo Sapien

<400> 25
 ctgcacctca aatgggaacg ctggcctggg actaaagcat agaccaccag 50
 gctgagtatc ctgacctgag tcatccccag ggatcaggag cctccagcag 100
 ggaaccttcc attatattct tcaagcaact tacagctgca ccgacagttg 150
 cgatgaaagt tctaattctct tccctcctcc tgttgctgcc actaatgctg 200
 atgtccatgg tctctagcag cctgaatcca ggggtcgcca gaggccacag 250
 ggaccgaggc caggcttcta ggagatggct ccaggaaggc ggccaagaat 300
 gtgagtgcaa agattgggtc ctgagagccc cgagaagaaa attcatgaca 350
 gtgtctgggc tgccaaagaa gcagtgcctc tgtgatcatt tcaagggcaa 400
 tgtgaagaaa acaagacacc aaaggcacca cagaaagcca aacaagcatt 450
 ccagagcctg ccagcaattt ctcaaacaat gtcagctaag aagctttgct 500
 ctgcctttgt aggagctctg agcgcccact cttccaatta aacattctca 550
 gccaaagaaga cagtgagcac acctaccaga cactcttctt ctcccacctc 600
 actctccacac tgtaccacc cctaaatcat tccagtgtc tcaaaaagca 650
 tgtttttcaa gatcattttg tttgttgctc tctctagtgt cttcttctct 700
 cgtcagtctt agcctgtgcc ctccccttac ccaggcttag gcttaattac 750
 ctgaaagatt ccaggaaact gtagcttcct agctagtgtc atttaacctt 800
 aaatgcaatc aggaaagtag caaacagaag tcaataaata tttttaaatg 850
 tcaaaaaaaaa aaaaaaaaaa 870

<210> 26
 <211> 119
 <212> PRT
 <213> Homo Sapien

<400> 26

Met	Lys	Val	Leu	Ile	Ser	Ser	Leu	Leu	Leu	Leu	Leu	Pro	Leu	Met
1				5					10					15
Leu	Met	Ser	Met	Val	Ser	Ser	Ser	Leu	Asn	Pro	Gly	Val	Ala	Arg
				20					25					30
Gly	His	Arg	Asp	Arg	Gly	Gln	Ala	Ser	Arg	Arg	Trp	Leu	Gln	Glu
				35					40					45
Gly	Gly	Gln	Glu	Cys	Glu	Cys	Lys	Asp	Trp	Phe	Leu	Arg	Ala	Pro
				50					55					60
Arg	Arg	Lys	Phe	Met	Thr	Val	Ser	Gly	Leu	Pro	Lys	Lys	Gln	Cys
				65					70					75
Pro	Cys	Asp	His	Phe	Lys	Gly	Asn	Val	Lys	Lys	Thr	Arg	His	Gln
				80					85					90
Arg	His	His	Arg	Lys	Pro	Asn	Lys	His	Ser	Arg	Ala	Cys	Gln	Gln
				95					100					105
Phe	Leu	Lys	Gln	Cys	Gln	Leu	Arg	Ser	Phe	Ala	Leu	Pro	Leu	
				110					115					

<210> 27

<211> 1371

<212> DNA

<213> Homo Sapien

<400> 27

ggacgccagc gcctgcagag gctgagcagg gaaaaagcca gtgccccagc 50
ggaagcacag ctcagagctg gtctgccatg gacatcctgg tcccactcct 100
gcagctgctg gtgctgcttc ttaccctgcc cctgcacctc atggctctgc 150
tgggctgctg gcagcccctg tgcaaaagct acttccccta cctgatggcc 200
gtgctgactc ccaagagcaa ccgcaagatg gagagcaaga aacgggagct 250
cttcagccag ataaaggggc ttacaggagc ctccgggaaa gtggccctac 300
tggagctggg ctgcggaacc ggagccaact ttcagttcta cccaccgggc 350
tgcaggggtca cctgcctaga cccaaatccc cactttgaga agttcctgac 400
aaagagcatg gctgagaaca ggcacctcca atatgagcgg tttgtggtgg 450
ctcctggaga ggacatgaga cagctggctg atggctccat ggatgtggtg 500
gtctgcactc tgggtgctgtg ctctgtgcag agcccaagga aggtcctgca 550
ggaggtccgg agagtactga gaccgggagg tgtgctcttt ttctgggagc 600
atgtggcaga accatatgga agctgggcct tcatgtggca gcaagttttc 650
gagcccacct ggaaacacat tggggatggc tgctgcctca ccagagagac 700

ctggaaggat cttgagaacg cccagttctc cgaaatccaa atggaacgac 750
 agccccctcc cttgaagtgg ctacctgttg ggccccacat catgggaaag 800
 gctgtcaaac aatctttccc aagctccaag gcactcattt gtccttccc 850
 cagcctccaa ttagaacaag ccacccacca gcctatctat cttccactga 900
 gagggaccta gcagaatgag agaagacatt catgtaccac ctactagtcc 950
 ctctctcccc aacctctgcc agggcaatct ctaacttcaa tcccgccttc 1000
 gacagtgaag aagctctact tctacgtga cccagggagg aaacactagg 1050
 accctgttgt atcctcaact gcaagtttct ggactagtct cccaacgttt 1100
 gcctcccaat gttgtccctt tccttcgttc ccatggtaaa gtcctctctg 1150
 ctttctctct gaggctacac ccatgcgtct ctaggaactg gtcacaaaag 1200
 tcatggtgcc tgcattcctg ccaagcccc ctgacctct ctccccacta 1250
 ccaccttctt cctgagctgg gggcaccagg gagaatcaga gatgctgggg 1300
 atgccagagc aagactcaaa gaggcagagg ttttgttctc aaatattttt 1350
 taataaatag acgaaaccac g 1371

<210> 28

<211> 277

<212> PRT

<213> Homo Sapien

<400> 28

Met	Asp	Ile	Leu	Val	Pro	Leu	Leu	Gln	Leu	Leu	Val	Leu	Leu	Leu
1				5				10						15
Thr	Leu	Pro	Leu	His	Leu	Met	Ala	Leu	Leu	Gly	Cys	Trp	Gln	Pro
				20				25						30
Leu	Cys	Lys	Ser	Tyr	Phe	Pro	Tyr	Leu	Met	Ala	Val	Leu	Thr	Pro
				35				40						45
Lys	Ser	Asn	Arg	Lys	Met	Glu	Ser	Lys	Lys	Arg	Glu	Leu	Phe	Ser
				50				55						60
Gln	Ile	Lys	Gly	Leu	Thr	Gly	Ala	Ser	Gly	Lys	Val	Ala	Leu	Leu
				65				70						75
Glu	Leu	Gly	Cys	Gly	Thr	Gly	Ala	Asn	Phe	Gln	Phe	Tyr	Pro	Pro
				80				85						90
Gly	Cys	Arg	Val	Thr	Cys	Leu	Asp	Pro	Asn	Pro	His	Phe	Glu	Lys
				95				100						105
Phe	Leu	Thr	Lys	Ser	Met	Ala	Glu	Asn	Arg	His	Leu	Gln	Tyr	Glu

	110		115		120
Arg Phe Val Val	Ala Pro Gly Glu Asp Met Arg Gln Leu Ala Asp				
	125		130		135
Gly Ser Met Asp	Val Val Val Cys Thr Leu Val Leu Cys Ser Val				
	140		145		150
Gln Ser Pro Arg	Lys Val Leu Gln Glu Val Arg Arg Val Leu Arg				
	155		160		165
Pro Gly Gly Val	Leu Phe Phe Trp Glu His Val Ala Glu Pro Tyr				
	170		175		180
Gly Ser Trp Ala	Phe Met Trp Gln Gln Val Phe Glu Pro Thr Trp				
	185		190		195
Lys His Ile Gly	Asp Gly Cys Cys Leu Thr Arg Glu Thr Trp Lys				
	200		205		210
Asp Leu Glu Asn	Ala Gln Phe Ser Glu Ile Gln Met Glu Arg Gln				
	215		220		225
Pro Pro Pro Leu	Lys Trp Leu Pro Val Gly Pro His Ile Met Gly				
	230		235		240
Lys Ala Val Lys	Gln Ser Phe Pro Ser Ser Lys Ala Leu Ile Cys				
	245		250		255
Ser Phe Pro Ser	Leu Gln Leu Glu Gln Ala Thr His Gln Pro Ile				
	260		265		270
Tyr Leu Pro Leu	Arg Gly Thr				
	275				

<210> 29
 <211> 494
 <212> DNA
 <213> Homo Sapien

<400> 29
 caatgtttgc ctatccacct cccccaagcc cctttaccta tgctgctgct 50
 aacgctgctg ctgctgctgc tgctgcttaa aggctcatgc ttggagtggg 100
 gactggtcgg tgcccagaaa gtctcttctg ccactgacgc ccccatcagg 150
 gattgggcct tctttccccc ttcctttctg tgtctcctgc ctcatcggcc 200
 tgccatgacc tgcagccaag cccagccccg tggggaaggg gagaaagtgg 250
 gggatggcta agaaagctgg gagataggga acagaagagg gtagtgggtg 300
 ggctaggggg gctgccttat ttaaagtggg tgtttatgat tcttatacta 350
 atttatacaa agatattaag gccctgttca ttaagaaatt gttcccttcc 400

cctgtgttca atgtttgtaa agattgttct gtgtaaatat gtctttataa 450

taaacagtta aaagctgaaa aaaaaaaaaa aaaaaaaaaa aaaa 494

<210> 30

<211> 73

<212> PRT

<213> Homo Sapien

<400> 30

Met	Leu	Leu	Leu	Thr	Leu	Leu	Leu	Leu	Leu	Leu	Leu	Lys	Gly
1				5				10					15

Ser	Cys	Leu	Glu	Trp	Gly	Leu	Val	Gly	Ala	Gln	Lys	Val	Ser	Ser
				20				25						30

Ala	Thr	Asp	Ala	Pro	Ile	Arg	Asp	Trp	Ala	Phe	Phe	Pro	Pro	Ser
				35				40						45

Phe	Leu	Cys	Leu	Leu	Pro	His	Arg	Pro	Ala	Met	Thr	Cys	Ser	Gln
				50				55						60

Ala	Gln	Pro	Arg	Gly	Glu	Gly	Glu	Lys	Val	Gly	Asp	Gly
				65				70				

<210> 31

<211> 1660

<212> DNA

<213> Homo Sapien

<400> 31

gtttgaattc cttcaactat acccacagtc caaaagcaga ctactgtgt 50

cccaggctac cagttcctcc aagcaagtca tttcccttat ttaaccgatg 100

tgtccctcaa acacctgagt gctactccct atttgcatct gttttgataa 150

atgatgttga caccctccac cgaattctaa gtggaatcat gtcgggaaga 200

gatacaatcc ttggcctgtg taccctcgca ttagccttgt ctttgcccat 250

gatgtttacc ttcagattca tcaccacct tctggttcac attttcattt 300

cattggttat tttgggattg ttgtttgtct gcggtgtttt atgggtggctg 350

tattatgact ataccaacga cctcagcata gaattggaca cagaaaggga 400

aaatatgaag tgcgtgctgg ggtttgctat cgtatccaca ggcacacgg 450

cagtgtgct cgtcttgatt tttgttctca gaaagagaat aaaattgaca 500

gttgagcttt tccaaatcac aaataaagcc atcagcagtg ctcccttcct 550

gctgttccag ccactgtgga catttgccat cctcattttc ttctgggtcc 600

tctgggtggc tgtgctgctg agcctgggaa ctgcaggagc tgcccagggt 650

atggaaggcg gccaaagtga atataagccc ctttcgggca ttcggtacat 700

gtggtcgtag catttaattg gcctcatctg gactagtga ttcacacctg 750
 cgtgccagca aatgactata gctggggcag tggttacttg ttatttcaac 800
 agaagtaaaa atgacacctc tgatcatccc atcctttcgt ctctctccat 850
 tctcttcttc taccatcaag gaaccgttgt gaaaggggtca tttttaatct 900
 ctgtggtgag gattccgaga atcattgtca tgtacatgca aaacgcactg 950
 aaagaacagc agcatgggtgc attgtccagg tacctgttcc gatgctgcta 1000
 ctgctgtttc tgggtgtcttg acaaatacct gctccatctc aaccagaatg 1050
 catatactac aactgctatt aatgggacag atttctgtac atcagcaaaa 1100
 gatgcattca aaatcttgtc caagaactca agtcacttta catctattaa 1150
 ctgctttgga gacttcataa tttttctagg aaaggtgtta gtggtgtgtt 1200
 tcaactgtttt tggaggactc atggctttta actacaatcg ggcattccag 1250
 gtgtgggcag tccctctggt attggtagct tttttgcct acttagtagc 1300
 ccatagtttt ttatctgtgt ttgaaactgt gctggatgca cttttcctgt 1350
 gttttgctgt tgatctggaa acaaatgatg gatcgtcaga aaagccctac 1400
 tttatggatc aagaatttct gagtttcgta aaaaggagca acaaattaaa 1450
 caatgcaagg gcacagcagg acaagcactc attaaggaat gaggagggaa 1500
 cagaactcca ggccattgtg agatagatac ccatttaggt atctgtacct 1550
 ggaaaacatt tccttctaag agccatttac agaatagaag atgagaccac 1600
 tagagaaaag ttagtgaatt tttttttaa agacctaata aaccctattc 1650
 ttctctcaaaa 1660

<210> 32
 <211> 445
 <212> PRT
 <213> Homo Sapien

<400> 32
 Met Ser Gly Arg Asp Thr Ile Leu Gly Leu Cys Ile Leu Ala Leu
 1 5 10 15
 Ala Leu Ser Leu Ala Met Met Phe Thr Phe Arg Phe Ile Thr Thr
 20 25 30
 Leu Leu Val His Ile Phe Ile Ser Leu Val Ile Leu Gly Leu Leu
 35 40 45
 Phe Val Cys Gly Val Leu Trp Trp Leu Tyr Tyr Asp Tyr Thr Asn
 50 55 60

Asp	Leu	Ser	Ile	Glu	Leu	Asp	Thr	Glu	Arg	Glu	Asn	Met	Lys	Cys	
				65					70					75	
Val	Leu	Gly	Phe	Ala	Ile	Val	Ser	Thr	Gly	Ile	Thr	Ala	Val	Leu	
				80					85					90	
Leu	Val	Leu	Ile	Phe	Val	Leu	Arg	Lys	Arg	Ile	Lys	Leu	Thr	Val	
				95					100					105	
Glu	Leu	Phe	Gln	Ile	Thr	Asn	Lys	Ala	Ile	Ser	Ser	Ala	Pro	Phe	
				110					115					120	
Leu	Leu	Phe	Gln	Pro	Leu	Trp	Thr	Phe	Ala	Ile	Leu	Ile	Phe	Phe	
				125					130					135	
Trp	Val	Leu	Trp	Val	Ala	Val	Leu	Leu	Ser	Leu	Gly	Thr	Ala	Gly	
				140					145					150	
Ala	Ala	Gln	Val	Met	Glu	Gly	Gly	Gln	Val	Glu	Tyr	Lys	Pro	Leu	
				155					160					165	
Ser	Gly	Ile	Arg	Tyr	Met	Trp	Ser	Tyr	His	Leu	Ile	Gly	Leu	Ile	
				170					175					180	
Trp	Thr	Ser	Glu	Phe	Ile	Leu	Ala	Cys	Gln	Gln	Met	Thr	Ile	Ala	
				185					190					195	
Gly	Ala	Val	Val	Thr	Cys	Tyr	Phe	Asn	Arg	Ser	Lys	Asn	Asp	Pro	
				200					205					210	
Pro	Asp	His	Pro	Ile	Leu	Ser	Ser	Leu	Ser	Ile	Leu	Phe	Phe	Tyr	
				215					220					225	
His	Gln	Gly	Thr	Val	Val	Lys	Gly	Ser	Phe	Leu	Ile	Ser	Val	Val	
				230					235					240	
Arg	Ile	Pro	Arg	Ile	Ile	Val	Met	Tyr	Met	Gln	Asn	Ala	Leu	Lys	
				245					250					255	
Glu	Gln	Gln	His	Gly	Ala	Leu	Ser	Arg	Tyr	Leu	Phe	Arg	Cys	Cys	
				260					265					270	
Tyr	Cys	Cys	Phe	Trp	Cys	Leu	Asp	Lys	Tyr	Leu	Leu	His	Leu	Asn	
				275					280					285	
Gln	Asn	Ala	Tyr	Thr	Thr	Thr	Ala	Ile	Asn	Gly	Thr	Asp	Phe	Cys	
				290					295					300	
Thr	Ser	Ala	Lys	Asp	Ala	Phe	Lys	Ile	Leu	Ser	Lys	Asn	Ser	Ser	
				305					310					315	
His	Phe	Thr	Ser	Ile	Asn	Cys	Phe	Gly	Asp	Phe	Ile	Ile	Phe	Leu	
				320					325					330	
Gly	Lys	Val	Leu	Val	Val	Cys	Phe	Thr	Val	Phe	Gly	Gly	Leu	Met	
				335					340					345	

Ala Phe Asn Tyr Asn Arg Ala Phe Gln Val Trp Ala Val Pro Leu
350 355 360

Leu Leu Val Ala Phe Phe Ala Tyr Leu Val Ala His Ser Phe Leu
365 370 375

Ser Val Phe Glu Thr Val Leu Asp Ala Leu Phe Leu Cys Phe Ala
380 385 390

Val Asp Leu Glu Thr Asn Asp Gly Ser Ser Glu Lys Pro Tyr Phe
395 400 405

Met Asp Gln Glu Phe Leu Ser Phe Val Lys Arg Ser Asn Lys Leu
410 415 420

Asn Asn Ala Arg Ala Gln Gln Asp Lys His Ser Leu Arg Asn Glu
425 430 435

Glu Gly Thr Glu Leu Gln Ala Ile Val Arg
440 445

<210> 33
<211> 2773
<212> DNA
<213> Homo Sapien

<400> 33
gttcgattag ctctcttgag aagaagagaa aaggttcttg gacctctccc 50

tggttcttcc ttagaataat ttgtatggga tttgtgatgc aggaaagcct 100
aagggaaaaa gaatttcat tctgtgtggt gaaaattttt tgaaaaaaaa 150

attgccttct tcaaacaagg gtgtcattct gatatttatg aggactgttg 200

ttctcactat gaaggcatct gttattgaaa tgttccttgt tttgctggtg 250

actggagtac attcaaacaa agaaacggca aagaagatta aaaggcccaa 300

gttcactgtg cctcagatca actgcatgtt caaagccgga aagatcatcg 350

atcctgagtt cattgtgaaa tgtccagcag gatgccaaga ccccaaatac 400

catgtttatg gcactgacgt gtatgcatcc tactccagtg tgtgtggcgc 450

tgccgtacac agtgggtgtg ttgataattc aggagggaaa atacttggtc 500

ggaaggttgc tggacagtct gggtacaaag ggagttattc caacggtgtc 550

caatcggtat ccctaccacg atggagagaa tcctttatcg tcttagaaag 600

taaacccaaa aagggtgtaa cctaccatc agctcttaca tactcatcat 650

cgaaaagtcc agctgcccaa gcaggtgaga ccacaaaagc ctatcagagg 700

ccacctattc cagggacaac tgcacagccg gtcactctga tgcagcttct 750

ggctgtcact gtagctgtgg ccacccccac caccttgcca aggccatccc 800

cttctgctgc ttctaccacc agcatcccca gaccacaatc agtgggccac 850
 aggagccagg agatggatct ctgggtccact gccacctaca caagcagcca 900
 aaacaggccc agagctgata cagggtatcca aaggcaagat ccttcaggag 950
 ctgccttcca gaaacctgtt ggagcggatg tcagcctggg acttgttcca 1000
 aaagaagaat tgagcacaca gtctttggag ccagtatccc tgggagatcc 1050
 aaactgcaaa attgacttgt cgtttttaat tgatgggagc accagcattg 1100
 gcaaacggcg attccgaatc cagaagcagc tcctggctga tgttgcccaa 1150
 gctcttgaca ttggccctgc cgggtccactg atgggtgttg tccagtatgg 1200
 agacaaccct gctactcact ttaacctcaa gacacacacg aattctcgag 1250
 atctgaagac agccatagag aaaattactc agagaggagg acttttctaat 1300
 gtaggtcggg ccatctcctt tgtgaccaag aacttctttt ccaaagccaa 1350
 tggaaacaga agcggggctc ccaatgtggt ggtggtgatg gtggatggct 1400
 ggcccacgga caaagtggag gaggttcaa gacttgcgag agagtcagga 1450
 atcaacattt tcttcatcac cattgaaggt gctgctgaaa atgagaagca 1500
 gtatgtggtg gagcccaact ttgcaaaca ggccgtgtgc agaacaacg 1550
 gcttctactc gctccacgtg cagagctggt ttggcctcca caagaccctg 1600
 cagcctctgg tgaagcgggt ctgcgacact gaccgcctgg cctgcagcaa 1650
 gacctgcttg aactcggtg acattggctt cgtcatcgac ggctccagca 1700
 gtgtggggac gggcaacttc cgcaccgtcc tccagtttgt gaccaacctc 1750
 accaaagagt ttgagatttc cgacacggac acgcgcatcg gggccgtgca 1800
 gtacacctac gaacagcggc tggagtttgg gttcgacaag tacagcagca 1850
 agcctgacat cctcaacgcc atcaagaggg tgggctactg gagtgggtggc 1900
 accagcacgg gggctgccat caacttcgcc ctggagcagc tcttcaagaa 1950
 gtccaagccc aacaagagga agttaatgat cctcatcacc gacgggaggt 2000
 cctacgacga cgtccggatc ccagccatgg ctgccatct gaaggagtg 2050
 atcacctatg cgataggcgt tgcttgggt gcccaagagg agctagaagt 2100
 cattgccact cccccgcca gagaccactc cttcttttgt gacgagtttg 2150
 acaacctcca tcagtatgtc cccaggatca tccagaacat ttgtacagag 2200

ttcaactcac agcctcggaa ctgaattcag agcaggcaga gcaccagcaa 2250
 gtgctgcttt actaactgac gtgttgacc accccaccgc ttaatggggc 2300
 acgcacggtg catcaagtct tgggcagggc atggagaaac aaatgtcttg 2350
 ttattattct ttgccatcat gctttttcat attccaaaac ttggagttac 2400
 aaagatgata acaaacgtat agaatgagcc aaaaggctac atcatgttga 2450
 gggtgctgga gattttacat ttgacaatt gttttcaaaa taaatgttcg 2500
 gaatacagtg cagcccttac gacaggctta cgtagagctt ttgtgagatt 2550
 ttttaagttgt tatttctgat ttgaactctg taaccctcag caagtttcat 2600
 ttttgtcatg acaatgtagg aattgctgaa ttaaatgttt agaaggatga 2650
 aaaataaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2700
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2750
 aaaaaaaaaa aaaaaaaaaa aag 2773

<210> 34
 <211> 678
 <212> PRT
 <213> Homo Sapien

<400> 34
 Met Arg Thr Val Val Leu Thr Met Lys Ala Ser Val Ile Glu Met
 1 5 10 15
 Phe Leu Val Leu Leu Val Thr Gly Val His Ser Asn Lys Glu Thr
 20 25 30
 Ala Lys Lys Ile Lys Arg Pro Lys Phe Thr Val Pro Gln Ile Asn
 35 40 45
 Cys Asp Val Lys Ala Gly Lys Ile Ile Asp Pro Glu Phe Ile Val
 50 55 60
 Lys Cys Pro Ala Gly Cys Gln Asp Pro Lys Tyr His Val Tyr Gly
 65 70 75
 Thr Asp Val Tyr Ala Ser Tyr Ser Ser Val Cys Gly Ala Ala Val
 80 85 90
 His Ser Gly Val Leu Asp Asn Ser Gly Gly Lys Ile Leu Val Arg
 95 100 105
 Lys Val Ala Gly Gln Ser Gly Tyr Lys Gly Ser Tyr Ser Asn Gly
 110 115 120
 Val Gln Ser Leu Ser Leu Pro Arg Trp Arg Glu Ser Phe Ile Val
 125 130 135

Leu	Glu	Ser	Lys	Pro	Lys	Lys	Gly	Val	Thr	Tyr	Pro	Ser	Ala	Leu	140	145	150
Thr	Tyr	Ser	Ser	Ser	Lys	Ser	Pro	Ala	Ala	Gln	Ala	Gly	Glu	Thr	155	160	165
Thr	Lys	Ala	Tyr	Gln	Arg	Pro	Pro	Ile	Pro	Gly	Thr	Thr	Ala	Gln	170	175	180
Pro	Val	Thr	Leu	Met	Gln	Leu	Leu	Ala	Val	Thr	Val	Ala	Val	Ala	185	190	195
Thr	Pro	Thr	Thr	Leu	Pro	Arg	Pro	Ser	Pro	Ser	Ala	Ala	Ser	Thr	200	205	210
Thr	Ser	Ile	Pro	Arg	Pro	Gln	Ser	Val	Gly	His	Arg	Ser	Gln	Glu	215	220	225
Met	Asp	Leu	Trp	Ser	Thr	Ala	Thr	Tyr	Thr	Ser	Ser	Gln	Asn	Arg	230	235	240
Pro	Arg	Ala	Asp	Pro	Gly	Ile	Gln	Arg	Gln	Asp	Pro	Ser	Gly	Ala	245	250	255
Ala	Phe	Gln	Lys	Pro	Val	Gly	Ala	Asp	Val	Ser	Leu	Gly	Leu	Val	260	265	270
Pro	Lys	Glu	Glu	Leu	Ser	Thr	Gln	Ser	Leu	Glu	Pro	Val	Ser	Leu	275	280	285
Gly	Asp	Pro	Asn	Cys	Lys	Ile	Asp	Leu	Ser	Phe	Leu	Ile	Asp	Gly	290	295	300
Ser	Thr	Ser	Ile	Gly	Lys	Arg	Arg	Phe	Arg	Ile	Gln	Lys	Gln	Leu	305	310	315
Leu	Ala	Asp	Val	Ala	Gln	Ala	Leu	Asp	Ile	Gly	Pro	Ala	Gly	Pro	320	325	330
Leu	Met	Gly	Val	Val	Gln	Tyr	Gly	Asp	Asn	Pro	Ala	Thr	His	Phe	335	340	345
Asn	Leu	Lys	Thr	His	Thr	Asn	Ser	Arg	Asp	Leu	Lys	Thr	Ala	Ile	350	355	360
Glu	Lys	Ile	Thr	Gln	Arg	Gly	Gly	Leu	Ser	Asn	Val	Gly	Arg	Ala	365	370	375
Ile	Ser	Phe	Val	Thr	Lys	Asn	Phe	Phe	Ser	Lys	Ala	Asn	Gly	Asn	380	385	390
Arg	Ser	Gly	Ala	Pro	Asn	Val	Val	Val	Val	Met	Val	Asp	Gly	Trp	395	400	405
Pro	Thr	Asp	Lys	Val	Glu	Glu	Ala	Ser	Arg	Leu	Ala	Arg	Glu	Ser	410	415	420

Gly Ile Asn Ile Phe Phe Ile Thr Ile Glu Gly Ala Ala Glu Asn	425	430	435
Glu Lys Gln Tyr Val Val Glu Pro Asn Phe Ala Asn Lys Ala Val	440	445	450
Cys Arg Thr Asn Gly Phe Tyr Ser Leu His Val Gln Ser Trp Phe	455	460	465
Gly Leu His Lys Thr Leu Gln Pro Leu Val Lys Arg Val Cys Asp	470	475	480
Thr Asp Arg Leu Ala Cys Ser Lys Thr Cys Leu Asn Ser Ala Asp	485	490	495
Ile Gly Phe Val Ile Asp Gly Ser Ser Ser Val Gly Thr Gly Asn	500	505	510
Phe Arg Thr Val Leu Gln Phe Val Thr Asn Leu Thr Lys Glu Phe	515	520	525
Glu Ile Ser Asp Thr Asp Thr Arg Ile Gly Ala Val Gln Tyr Thr	530	535	540
Tyr Glu Gln Arg Leu Glu Phe Gly Phe Asp Lys Tyr Ser Ser Lys	545	550	555
Pro Asp Ile Leu Asn Ala Ile Lys Arg Val Gly Tyr Trp Ser Gly	560	565	570
Gly Thr Ser Thr Gly Ala Ala Ile Asn Phe Ala Leu Glu Gln Leu	575	580	585
Phe Lys Lys Ser Lys Pro Asn Lys Arg Lys Leu Met Ile Leu Ile	590	595	600
Thr Asp Gly Arg Ser Tyr Asp Asp Val Arg Ile Pro Ala Met Ala	605	610	615
Ala His Leu Lys Gly Val Ile Thr Tyr Ala Ile Gly Val Ala Trp	620	625	630
Ala Ala Gln Glu Glu Leu Glu Val Ile Ala Thr His Pro Ala Arg	635	640	645
Asp His Ser Phe Phe Val Asp Glu Phe Asp Asn Leu His Gln Tyr	650	655	660
Val Pro Arg Ile Ile Gln Asn Ile Cys Thr Glu Phe Asn Ser Gln	665	670	675

Pro Arg Asn

<210> 35
 <211> 2095
 <212> DNA

<213> Homo Sapien

<400> 35

```
ccgagcacag gagattgcct gcgttttagga ggtggctgcg ttgtgggaaa 50
agctatcaag gaagaaattg ccaaaccatg tctttttttc tgttttcaga 100
gtagttcaca acagatctga gtgttttaat taagcatgga atacagaaaa 150
caacaaaaaa cttaaagcttt aatttcatct ggaattccac agttttctta 200
gctccctgga cccggttgac ctgttggtc tccccgctgg ctgctctatc 250
acgtggtgct ctccgactac tcaccccgag tgtaaagaac cttcggctcg 300
cgtgcttctg agctgctgtg gatggcctcg gctctctgga ctgtccttcc 350
gagtaggatg tcactgagat ccctcaaatt gagcctcctg ctgctgtcac 400
tcttgagttt ctttgtgatg tggtagctca gccttccccca ctacaattgtg 450
atagaacgcg tgaactggat gtacttctat gagtatgagc cgatttacag 500
acaagacttt cacttcacac ttcgagagca ttcaaactgc tctcatcaaa 550
atccatttct gggtcattctg gtgacctccc acccttcaga tgtgaaagcc 600
aggcaggcca ttagagttac ttgggggtgaa aaaaagtctt ggtggggata 650
tgaggttctt acatttttct tattaggcca agaggctgaa aaggaagaca 700
aaatgttggc attgtcctta gaggatgaac accttcttta tggtagacata 750
atccgacaag attttttaga cacatataat aacctgacct tgaaaacccat 800
tatggcattc aggtgggtaa ctgagttttg cccaatgcc aagtacgtaa 850
tgaagacaga cactgatgtt ttcacataa ctggcaattt agtgaagtat 900
cttttaaacc taaaccactc agagaagttt ttcacaggtt atcctctaata 950
tgataattat tcctatagag gattttacca aaaaacccat atttcttacc 1000
aggagtatcc tttcaagggtg ttccctccat actgcagtgg gttgggttat 1050
ataatgtcca gagatttggt gccaaaggatc tatgaaatga tgggtcacgt 1100
aaaacccatc aagtttgaag atgtttatgt cgggatctgt ttgaatttat 1150
taaaagtgaa cattcatatt ccagaagaca caaatctttt ctttctatat 1200
agaatccatt tggatgtctg tcaactgaga cgtgtgattg cagcccatgg 1250
cttttcttcc aaggagatca tcactttttg gcagggtcatg ctaaggaaca 1300
ccacatgcca ttattaactt cacattctac aaaaagccta gaaggacagg 1350
```


ataccttggtg gaaagtgtta aataaagtag gtactgtgga aaattcatgg 1400
 ggaggtcagt gtgctggctt acactgaact gaaactcatg aaaaacccag 1450
 actggagact ggaggggttac acttgtgatt tattagtcag gcccttcaaa 1500
 gatgatatgt ggaggaatta aatataaagg aattggaggt ttttgctaaa 1550
 gaaattaata ggaccaaaca atttggacat gtcattctgt agactagaat 1600
 ttcttaaaag ggtgttactg agttataagc tcactaggct gtaaaaacaa 1650
 aacaatgtag agttttatatt attgaacaat gtagtcactt gaaggttttg 1700
 tgtatatctt atgtggatta ccaatttaaa aatatatgta gttctgtgtc 1750
 aaaaaacttc ttactgaag ttatactgaa caaaatttta cctgtttttg 1800
 gtcatttata aagtacttca agatgttgca gtatttcaca gttattatta 1850
 tttaaaatta cttcaacttt gtgtttttta atgttttgac gatttcaata 1900
 caagataaaa aggatagtga atcattcttt acatgcaaac attttccagt 1950
 tacttaactg atcagtttat tattgatata tcactccatt aatgtaaagt 2000
 cataggtcat tattgcatat cagtaatctc ttggactttg ttaaataattt 2050
 tactgtggta atatagagaa gaattaaagc aagaaaatct gaaaa 2095

<210> 36

<211> 331

<212> PRT

<213> Homo Sapien

<400> 36

Met	Ala	Ser	Ala	Leu	Trp	Thr	Val	Leu	Pro	Ser	Arg	Met	Ser	Leu
1				5					10					15
Arg	Ser	Leu	Lys	Trp	Ser	Leu	Leu	Leu	Leu	Ser	Leu	Leu	Ser	Phe
			20						25					30
Phe	Val	Met	Trp	Tyr	Leu	Ser	Leu	Pro	His	Tyr	Asn	Val	Ile	Glu
			35						40					45
Arg	Val	Asn	Trp	Met	Tyr	Phe	Tyr	Glu	Tyr	Glu	Pro	Ile	Tyr	Arg
			50						55					60
Gln	Asp	Phe	His	Phe	Thr	Leu	Arg	Glu	His	Ser	Asn	Cys	Ser	His
			65						70					75
Gln	Asn	Pro	Phe	Leu	Val	Ile	Leu	Val	Thr	Ser	His	Pro	Ser	Asp
			80						85					90
Val	Lys	Ala	Arg	Gln	Ala	Ile	Arg	Val	Thr	Trp	Gly	Glu	Lys	Lys
			95						100					105

Ser Trp Trp Gly Tyr Glu Val Leu Thr Phe Phe Leu Leu Gly Gln	110	115	120
Glu Ala Glu Lys Glu Asp Lys Met Leu Ala Leu Ser Leu Glu Asp	125	130	135
Glu His Leu Leu Tyr Gly Asp Ile Ile Arg Gln Asp Phe Leu Asp	140	145	150
Thr Tyr Asn Asn Leu Thr Leu Lys Thr Ile Met Ala Phe Arg Trp	155	160	165
Val Thr Glu Phe Cys Pro Asn Ala Lys Tyr Val Met Lys Thr Asp	170	175	180
Thr Asp Val Phe Ile Asn Thr Gly Asn Leu Val Lys Tyr Leu Leu	185	190	195
Asn Leu Asn His Ser Glu Lys Phe Phe Thr Gly Tyr Pro Leu Ile	200	205	210
Asp Asn Tyr Ser Tyr Arg Gly Phe Tyr Gln Lys Thr His Ile Ser	215	220	225
Tyr Gln Glu Tyr Pro Phe Lys Val Phe Pro Pro Tyr Cys Ser Gly	230	235	240
Leu Gly Tyr Ile Met Ser Arg Asp Leu Val Pro Arg Ile Tyr Glu	245	250	255
Met Met Gly His Val Lys Pro Ile Lys Phe Glu Asp Val Tyr Val	260	265	270
Gly Ile Cys Leu Asn Leu Leu Lys Val Asn Ile His Ile Pro Glu	275	280	285
Asp Thr Asn Leu Phe Phe Leu Tyr Arg Ile His Leu Asp Val Cys	290	295	300
Gln Leu Arg Arg Val Ile Ala Ala His Gly Phe Ser Ser Lys Glu	305	310	315
Ile Ile Thr Phe Trp Gln Val Met Leu Arg Asn Thr Thr Cys His	320	325	330

Tyr

<210> 37

<211> 2846

<212> DNA

<213> Homo Sapien

<400> 37

cgctcgggca ccagccgcgg caaggatgga gctggggttgc tggacgcagt 50

tggggctcac ttttcttcag ctccttctca tctcgtcctt gccaaagagag 100

tacacagtca ttaatgaagc ctgccctgga gcagagtgga atatcatgtg 150
 tcgggagtgc tgtgaatatg atcagattga gtgcgtctgc cccggaaaga 200
 gggaagtcgt gggttatacc atcccttgc tgcaggaatga ggagaatgag 250
 tgtgactcct gcctgatcca cccaggttgt accatctttg aaaactgcaa 300
 gagctgccga aatggctcat gggggggtac cttggatgac ttctatgtga 350
 aggggttcta ctgtgcagag tgccgagcag gctggtacgg aggagactgc 400
 atgcgatgtg gccaggttct gcgagcccca aagggtcaga ttttgttgga 450
 aagctatccc ctaaagtctc actgtgaatg gaccattcat gctaaacctg 500
 ggtttgtcat ccaactaaga tttgtcatgt tgagtctgga gtttgactac 550
 atgtgccagt atgactatgt tgaggttctg gatggagaca accgcgatgg 600
 ccagatcatc aagcgtgtct gtggcaacga gcggccagct cctatccaga 650
 gcataggatc ctactccac gtcctcttcc actccgatgg ctccaagaat 700
 tttgacgggt tccatgccat ttatgaggag atcacagcat gtcctcatc 750
 cccttgtttc catgacggca cgtgcgtcct tgacaaggct ggatcttaca 800
 agtgtgcctg cttggcaggc tatactgggc agcgtgtga aaatctcctt 850
 gaagaaagaa actgctcaga ccctgggggc ccagtcaatg ggtaccagaa 900
 aataacaggg ggccctgggc ttatcaacgg acgcatgct aaaattggca 950
 ccgtggtgtc tttcttttgt aacaactcct atgttcttag tggcaatgag 1000
 aaaagaactt gccagcagaa tggagagtgg tcagggaac agcccatctg 1050
 cataaaagcc tgccgagaac caaagatttc agacctggtg agaaggagag 1100
 ttcttccgat gcaggttcag tcaagggaga caccattaca ccagctatac 1150
 tcagcggcct tcagcaagca gaaactgcag agtgccccta ccaagaagcc 1200
 agcccttccc tttggagatc tgcccatggg ataccaacat ctgcataccc 1250
 agtccagta tgagtgcac tcacccttct accgccgcct gggcagcagc 1300
 aggaggacat gtctgaggac tgggaagtgg agtgggcggg caccatcctg 1350
 catccctatc tgcgggaaaa ttgagaacat cactgctcca aagaccaag 1400
 ggttgcgctg gccgtggcag gcagccatct acaggaggac cagcggggtg 1450
 catgacggca gcctacacaa gggagcgtgg ttcttagtct gcagcgggtg 1500
 cctggtgaat gagcgactg tggtggtggc tgcccactgt gttactgacc 1550

tggggaaggt caccatgatc aagacagcag acctgaaagt tgttttgggg 1600
 aaattctacc gggatgatga ccgggatgag aagaccatcc agagcctaca 1650
 gattttctgct atcattctgc atcccaacta tgaccccatc ctgcttgatg 1700
 ctgacatcgc catcctgaag ctcctagaca aggcccgtat cagcacccga 1750
 gtccagccca tctgcctcgc tgccagtcgg gatctcagca cttccttcca 1800
 ggagtcccac atcactgtgg ctggctggaa tgtcctggca gacgtgagga 1850
 gccctggctt caagaacgac aactgcgct ctgggggtgg cagtgtggtg 1900
 gactcgctgc tgtgtgagga gcagcatgag gaccatggca tcccagtgag 1950
 tgtcactgat aacatgttct gtgccagctg ggaaccact gcccttctg 2000
 atatctgcac tgcagagaca ggaggcatcg cggctgtgtc cttcccggga 2050
 cgagcatctc ctgagccacg ctggcatctg atgggactgg tcagctggag 2100
 ctatgataaa acatgcagcc acaggctctc cactgccttc accaaggtgc 2150
 tgccttttaa agactggatt gaaagaaata tgaaatgaac catgctcatg 2200
 cactccttga gaagtgttct tgtatatccg tctgtacgtg tgtcattgcg 2250
 tgaagcagtg tgggcctgaa gtgtgatttg gcctgtgaac ttggctgtgc 2300
 cagggttctt gacttcaggg acaaaactca gtgaagggtg agtagacctc 2350
 cattgctggt aggctgatgc cgcgtccact actaggacag ccaattggaa 2400
 gatgccaggg cttgcaagaa gtaagtttct tcaaagaaga ccatatacaa 2450
 aacctctcca ctccactgac ctgggtggtc tccccaactt tcagttatac 2500
 gaatgccatc agcttgacca gggaagatct gggcttcatg agggcccttt 2550
 tgaggctctc aagttctaga gagctgcctg tgggacagcc cagggcagca 2600
 gagctgggat gtggtgcatg cttttgtgta catggccaca gtacagtctg 2650
 gtccttttcc ttcccatct cttgtacaca ttttaataaa ataagggttg 2700
 gcttctgaac tacaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2750
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2800
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa 2846

<210> 38
 <211> 720
 <212> PRT
 <213> Homo Sapien

<400> 38

Met	Glu	Leu	Gly	Cys	Trp	Thr	Gln	Leu	Gly	Leu	Thr	Phe	Leu	Gln	1	5	10	15
Leu	Leu	Leu	Ile	Ser	Ser	Leu	Pro	Arg	Glu	Tyr	Thr	Val	Ile	Asn	20	25	30	
Glu	Ala	Cys	Pro	Gly	Ala	Glu	Trp	Asn	Ile	Met	Cys	Arg	Glu	Cys	35	40	45	
Cys	Glu	Tyr	Asp	Gln	Ile	Glu	Cys	Val	Cys	Pro	Gly	Lys	Arg	Glu	50	55	60	
Val	Val	Gly	Tyr	Thr	Ile	Pro	Cys	Cys	Arg	Asn	Glu	Glu	Asn	Glu	65	70	75	
Cys	Asp	Ser	Cys	Leu	Ile	His	Pro	Gly	Cys	Thr	Ile	Phe	Glu	Asn	80	85	90	
Cys	Lys	Ser	Cys	Arg	Asn	Gly	Ser	Trp	Gly	Gly	Thr	Leu	Asp	Asp	95	100	105	
Phe	Tyr	Val	Lys	Gly	Phe	Tyr	Cys	Ala	Glu	Cys	Arg	Ala	Gly	Trp	110	115	120	
Tyr	Gly	Gly	Asp	Cys	Met	Arg	Cys	Gly	Gln	Val	Leu	Arg	Ala	Pro	125	130	135	
Lys	Gly	Gln	Ile	Leu	Leu	Glu	Ser	Tyr	Pro	Leu	Asn	Ala	His	Cys	140	145	150	
Glu	Trp	Thr	Ile	His	Ala	Lys	Pro	Gly	Phe	Val	Ile	Gln	Leu	Arg	155	160	165	
Phe	Val	Met	Leu	Ser	Leu	Glu	Phe	Asp	Tyr	Met	Cys	Gln	Tyr	Asp	170	175	180	
Tyr	Val	Glu	Val	Arg	Asp	Gly	Asp	Asn	Arg	Asp	Gly	Gln	Ile	Ile	185	190	195	
Lys	Arg	Val	Cys	Gly	Asn	Glu	Arg	Pro	Ala	Pro	Ile	Gln	Ser	Ile	200	205	210	
Gly	Ser	Ser	Leu	His	Val	Leu	Phe	His	Ser	Asp	Gly	Ser	Lys	Asn	215	220	225	
Phe	Asp	Gly	Phe	His	Ala	Ile	Tyr	Glu	Glu	Ile	Thr	Ala	Cys	Ser	230	235	240	
Ser	Ser	Pro	Cys	Phe	His	Asp	Gly	Thr	Cys	Val	Leu	Asp	Lys	Ala	245	250	255	
Gly	Ser	Tyr	Lys	Cys	Ala	Cys	Leu	Ala	Gly	Tyr	Thr	Gly	Gln	Arg	260	265	270	
Cys	Glu	Asn	Leu	Leu	Glu	Glu	Arg	Asn	Cys	Ser	Asp	Pro	Gly	Gly	275	280	285	

Pro Val Asn Gly Tyr Gln Lys Ile Thr Gly Gly Pro Gly Leu Ile	290	295	300
Asn Gly Arg His Ala Lys Ile Gly Thr Val Val Ser Phe Phe Cys	305	310	315
Asn Asn Ser Tyr Val Leu Ser Gly Asn Glu Lys Arg Thr Cys Gln	320	325	330
Gln Asn Gly Glu Trp Ser Gly Lys Gln Pro Ile Cys Ile Lys Ala	335	340	345
Cys Arg Glu Pro Lys Ile Ser Asp Leu Val Arg Arg Arg Val Leu	350	355	360
Pro Met Gln Val Gln Ser Arg Glu Thr Pro Leu His Gln Leu Tyr	365	370	375
Ser Ala Ala Phe Ser Lys Gln Lys Leu Gln Ser Ala Pro Thr Lys	380	385	390
Lys Pro Ala Leu Pro Phe Gly Asp Leu Pro Met Gly Tyr Gln His	395	400	405
Leu His Thr Gln Leu Gln Tyr Glu Cys Ile Ser Pro Phe Tyr Arg	410	415	420
Arg Leu Gly Ser Ser Arg Arg Thr Cys Leu Arg Thr Gly Lys Trp	425	430	435
Ser Gly Arg Ala Pro Ser Cys Ile Pro Ile Cys Gly Lys Ile Glu	440	445	450
Asn Ile Thr Ala Pro Lys Thr Gln Gly Leu Arg Trp Pro Trp Gln	455	460	465
Ala Ala Ile Tyr Arg Arg Thr Ser Gly Val His Asp Gly Ser Leu	470	475	480
His Lys Gly Ala Trp Phe Leu Val Cys Ser Gly Ala Leu Val Asn	485	490	495
Glu Arg Thr Val Val Val Ala Ala His Cys Val Thr Asp Leu Gly	500	505	510
Lys Val Thr Met Ile Lys Thr Ala Asp Leu Lys Val Val Leu Gly	515	520	525
Lys Phe Tyr Arg Asp Asp Asp Arg Asp Glu Lys Thr Ile Gln Ser	530	535	540
Leu Gln Ile Ser Ala Ile Ile Leu His Pro Asn Tyr Asp Pro Ile	545	550	555
Leu Leu Asp Ala Asp Ile Ala Ile Leu Lys Leu Leu Asp Lys Ala	560	565	570

Arg	Ile	Ser	Thr	Arg	Val	Gln	Pro	Ile	Cys	Leu	Ala	Ala	Ser	Arg	575	580	585
Asp	Leu	Ser	Thr	Ser	Phe	Gln	Glu	Ser	His	Ile	Thr	Val	Ala	Gly	590	595	600
Trp	Asn	Val	Leu	Ala	Asp	Val	Arg	Ser	Pro	Gly	Phe	Lys	Asn	Asp	605	610	615
Thr	Leu	Arg	Ser	Gly	Val	Val	Ser	Val	Val	Asp	Ser	Leu	Leu	Cys	620	625	630
Glu	Glu	Gln	His	Glu	Asp	His	Gly	Ile	Pro	Val	Ser	Val	Thr	Asp	635	640	645
Asn	Met	Phe	Cys	Ala	Ser	Trp	Glu	Pro	Thr	Ala	Pro	Ser	Asp	Ile	650	655	660
Cys	Thr	Ala	Glu	Thr	Gly	Gly	Ile	Ala	Ala	Val	Ser	Phe	Pro	Gly	665	670	675
Arg	Ala	Ser	Pro	Glu	Pro	Arg	Trp	His	Leu	Met	Gly	Leu	Val	Ser	680	685	690
Trp	Ser	Tyr	Asp	Lys	Thr	Cys	Ser	His	Arg	Leu	Ser	Thr	Ala	Phe	695	700	705
Thr	Lys	Val	Leu	Pro	Phe	Lys	Asp	Trp	Ile	Glu	Arg	Asn	Met	Lys	710	715	720

<210> 39

<211> 2571

<212> DNA

<213> Homo Sapien

<400> 39

```

ggttcctaca tcctctcatc tgagaatcag agagcataat cttcttacgg 50
gcccgtagatt tattaacgtg gcttaatctg aaggttctca gtcaaattct 100
ttgtgatcta ctgattgtgg gggcatggca aggtttgctt aaaggagctt 150
ggctgggttg ggcccttgta gctgacagaa ggtggccagg gagaatgcag 200
cacactgctc ggagaatgaa ggcgcttctg ttgctgggtct tgccttggtc 250
cagtcctgct aactacattg acaatgtggg caacctgcac ttcctgtatt 300
cagaactctg taaagggtgcc tcccactacg gcctgaccaa agataggaag 350
aggcgctcac aagatggctg tccagacggc tgtgcgagcc tcacagccac 400
ggctccctcc ccagagggtt ctgcagctgc caccatctcc ttaatgacag 450
acgagcctgg cctagacaac cctgcctacg tgtcctcggc agaggacggg 500
cagccagcaa tcagcccagt ggactctggc cggagcaacc gaactagggc 550

```

acggcccttt gagagatcca ctattagaag cagatcattt aaaaaataa 600
 atcgagcttt gagtgttctt cgaaggacaa agagcgggag tgcagttgcc 650
 aaccatgccg accagggcag ggaaaattct gaaaacacca ctgcccctga 700
 agtctttcca aggttgtagc acctgattcc agatggtgaa attaccagca 750
 tcaagatcaa tcgagtagat cccagtgaag gcctctctat taggctggtg 800
 ggaggtagcg aaacccact ggtccatctc attatccaac acatttatcg 850
 tgatggggtg atcgccagag acggccggct actgccagga gacatcattc 900
 taaaggtcaa cgggatggac atcagcaatg tccctcacia ctacgctgtg 950
 cgtctcctgc ggcagccctg ccaggtgctg tggtgactg tgatgcgtga 1000
 acagaagttc cgcagcagga acaatggaca ggccccggat gcctacagac 1050
 cccgagatga cagctttcat gtgattctca aaaaagtag ccccgaggag 1100
 cagcttgga taaaactggg gcgcaagggt gatgagcctg gggttttcat 1150
 cttcaatgtg ctggatggcg gtgtggcata tcgacatggt cagcttgagg 1200
 agaatgaccg tgtgttagcc atcaatggac atgatcttcg atatggcagc 1250
 ccagaaagtg cggctcatct gattcaggcc agtgaaagac gtgttcacct 1300
 cgtcgtgtcc cgccagggtc ggcagcggag ccctgacatc tttcaggaag 1350
 ccggctggaa cagcaatggc agctgggtccc cagggccagg ggagaggagc 1400
 aacactccca agcccccca tcctacaatt acttgatcatg agaaggtggg 1450
 aaatatccaa aaagaccccg gtgaatctct cggcatgacc gtcgcagggg 1500
 gagcatcaca tagagaatgg gatttgctta tctatgtcat cagtgttgag 1550
 cccggaggag tcataagcag agatggaaga ataaaaacag gtgacatttt 1600
 gttgaatgtg gatggggtcg aactgacaga ggtcagccgg agtgaggcag 1650
 tggcattatt gaaaagaaca tcctcctcga tagtactcaa agcttttgaa 1700
 gtcaaagagt atgagcccca ggaagactgc agcagcccag cagccctgga 1750
 ctccaaccac aacatggccc caccagtga ctggtcccca tcctgggtca 1800
 tgtggctgga attaccacgg tgcttgata actgtaaaga tattgtatta 1850
 cgaagaaaca cagctggaag tctgggcttc tgcattgtag gaggttatga 1900
 agaatacaat ggaaacaaac cttttttcat caaatccatt gttgaaggaa 1950

caccagcata caatgatgga agaattagat gtggtgatat tcttcttgct 2000
gtcaatggta gaagtacatc aggaatgata catgcttgct tggcaagact 2050
gctgaaagaa cttaaaggaa gaattactct aactattggt tcttggcctg 2100
gcactttttt atagaatcaa tgatgggtca gaggaaaaca gaaaaatcac 2150
aaataggcta agaagttgaa acactatatt tatcttggtca gtttttatat 2200
ttaaagaaag aatacattgt aaaaatgtca ggaaaagtat gatcatctaa 2250
tgaaagccag ttacacctca gaaaatatga ttccaaaaaa attaaaacta 2300
ctagtttttt ttcagtgtgg aggatttctc attactctac aacattgttt 2350
atattttttt tattcaataa aaagccctaa aacaactaaa atgattgatt 2400
tgtatacccc actgaattca agctgattta aatttaaaat ttggtatatg 2450
ctgaagtctg ccaagggtac attatggcca tttttaattt acagctaaaa 2500
tattttttta aatgcattgc tgagaaacgt tgctttcatc aaacaagaat 2550
aaatattttt cagaagttaa a 2571

<210> 40
<211> 632
<212> PRT
<213> Homo Sapien

<400> 40
Met Lys Ala Leu Leu Leu Leu Val Leu Pro Trp Leu Ser Pro Ala
1 5 10 15
Asn Tyr Ile Asp Asn Val Gly Asn Leu His Phe Leu Tyr Ser Glu
20 25 30
Leu Cys Lys Gly Ala Ser His Tyr Gly Leu Thr Lys Asp Arg Lys
35 40 45
Arg Arg Ser Gln Asp Gly Cys Pro Asp Gly Cys Ala Ser Leu Thr
50 55 60
Ala Thr Ala Pro Ser Pro Glu Val Ser Ala Ala Ala Thr Ile Ser
65 70 75
Leu Met Thr Asp Glu Pro Gly Leu Asp Asn Pro Ala Tyr Val Ser
80 85 90
Ser Ala Glu Asp Gly Gln Pro Ala Ile Ser Pro Val Asp Ser Gly
95 100 105
Arg Ser Asn Arg Thr Arg Ala Arg Pro Phe Glu Arg Ser Thr Ile
110 115 120
Arg Ser Arg Ser Phe Lys Lys Ile Asn Arg Ala Leu Ser Val Leu

				125					130					135
Arg	Arg	Thr	Lys	Ser	Gly	Ser	Ala	Val	Ala	Asn	His	Ala	Asp	Gln
				140					145					150
Gly	Arg	Glu	Asn	Ser	Glu	Asn	Thr	Thr	Ala	Pro	Glu	Val	Phe	Pro
				155					160					165
Arg	Leu	Tyr	His	Leu	Ile	Pro	Asp	Gly	Glu	Ile	Thr	Ser	Ile	Lys
				170					175					180
Ile	Asn	Arg	Val	Asp	Pro	Ser	Glu	Ser	Leu	Ser	Ile	Arg	Leu	Val
				185					190					195
Gly	Gly	Ser	Glu	Thr	Pro	Leu	Val	His	Ile	Ile	Ile	Gln	His	Ile
				200					205					210
Tyr	Arg	Asp	Gly	Val	Ile	Ala	Arg	Asp	Gly	Arg	Leu	Leu	Pro	Gly
				215					220					225
Asp	Ile	Ile	Leu	Lys	Val	Asn	Gly	Met	Asp	Ile	Ser	Asn	Val	Pro
				230					235					240
His	Asn	Tyr	Ala	Val	Arg	Leu	Leu	Arg	Gln	Pro	Cys	Gln	Val	Leu
				245					250					255
Trp	Leu	Thr	Val	Met	Arg	Glu	Gln	Lys	Phe	Arg	Ser	Arg	Asn	Asn
				260					265					270
Gly	Gln	Ala	Pro	Asp	Ala	Tyr	Arg	Pro	Arg	Asp	Asp	Ser	Phe	His
				275					280					285
Val	Ile	Leu	Asn	Lys	Ser	Ser	Pro	Glu	Glu	Gln	Leu	Gly	Ile	Lys
				290					295					300
Leu	Val	Arg	Lys	Val	Asp	Glu	Pro	Gly	Val	Phe	Ile	Phe	Asn	Val
				305					310					315
Leu	Asp	Gly	Gly	Val	Ala	Tyr	Arg	His	Gly	Gln	Leu	Glu	Glu	Asn
				320					325					330
Asp	Arg	Val	Leu	Ala	Ile	Asn	Gly	His	Asp	Leu	Arg	Tyr	Gly	Ser
				335					340					345
Pro	Glu	Ser	Ala	Ala	His	Leu	Ile	Gln	Ala	Ser	Glu	Arg	Arg	Val
				350					355					360
His	Leu	Val	Val	Ser	Arg	Gln	Val	Arg	Gln	Arg	Ser	Pro	Asp	Ile
				365					370					375
Phe	Gln	Glu	Ala	Gly	Trp	Asn	Ser	Asn	Gly	Ser	Trp	Ser	Pro	Gly
				380					385					390
Pro	Gly	Glu	Arg	Ser	Asn	Thr	Pro	Lys	Pro	Leu	His	Pro	Thr	Ile
				395					400					405
Thr	Cys	His	Glu	Lys	Val	Val	Asn	Ile	Gln	Lys	Asp	Pro	Gly	Glu

	410	415	420
Ser Leu Gly Met	Thr Val Ala Gly Gly	Ala Ser His Arg Glu	Trp
	425	430	435
Asp Leu Pro Ile	Tyr Val Ile Ser Val	Glu Pro Gly Gly Val	Ile
	440	445	450
Ser Arg Asp Gly	Arg Ile Lys Thr Gly	Asp Ile Leu Leu Asn	Val
	455	460	465
Asp Gly Val Glu	Leu Thr Glu Val Ser	Arg Ser Glu Ala Val	Ala
	470	475	480
Leu Leu Lys Arg	Thr Ser Ser Ser Ile	Val Leu Lys Ala Leu	Glu
	485	490	495
Val Lys Glu Tyr	Glu Pro Gln Glu Asp	Cys Ser Ser Pro Ala	Ala
	500	505	510
Leu Asp Ser Asn	His Asn Met Ala Pro	Pro Ser Asp Trp Ser	Pro
	515	520	525
Ser Trp Val Met	Trp Leu Glu Leu Pro	Arg Cys Leu Tyr Asn	Cys
	530	535	540
Lys Asp Ile Val	Leu Arg Arg Asn Thr	Ala Gly Ser Leu Gly	Phe
	545	550	555
Cys Ile Val Gly	Gly Tyr Glu Glu Tyr	Asn Gly Asn Lys Pro	Phe
	560	565	570
Phe Ile Lys Ser	Ile Val Glu Gly Thr	Pro Ala Tyr Asn Asp	Gly
	575	580	585
Arg Ile Arg Cys	Gly Asp Ile Leu Leu	Ala Val Asn Gly Arg	Ser
	590	595	600
Thr Ser Gly Met	Ile His Ala Cys Leu	Ala Arg Leu Leu Lys	Glu
	605	610	615
Leu Lys Gly Arg	Ile Thr Leu Thr Ile	Val Ser Trp Pro Gly	Thr
	620	625	630

Phe Leu

<210> 41

<211> 1964

<212> DNA

<213> Homo Sapien

<400> 41

accaggcatt gtatcttcag ttgtcatcaa gttcgcaatc agattggaaa 50

agctcaactt gaagctttct tgcctgcagt gaagcagaga gatagatatt 100

attcacgtaa taaaaaacat gggcttcaac ctgactttcc acctttccta 150
 caaattccga ttactgttgc tgttgacttt gtgcctgaca gtggttgggt 200
 gggccaccag taactacttc gtgggtgccca ttcaagagat tcctaaagca 250
 aaggagttca tggctaattt ccataagacc ctcattttgg ggaagggaaa 300
 aactctgact aatgaagcat ccacgaagaa ggtagaactt gacaactgtc 350
 cttctgtgtc tccttacctc agaggccaga gcaagctcat tttcaaacca 400
 gatctcactt tggaagaggt acaggcagaa aatcccaaag tgtccagagg 450
 ccggtatcgc cctcaggaat gttaaagcttt acagagggtc gccatcctcg 500
 ttccccaccg gaacagagag aaacacctga tgtacctgct ggaacatctg 550
 catcccttcc tgcagaggca gcagctggat tatggcatct acgtcatcca 600
 ccaggctgaa ggtaaaaagt ttaatcgagc caaactcttg aatgtgggct 650
 atctagaagc cctcaaggaa gaaaattggg actgctttat attccacgat 700
 gtggacctgg tacccgagaa tgactttaac ctttacaagt gtgaggagca 750
 tcccaagcat ctggtgggtg gcaggaacag cactgggtac aggttacgtt 800
 acagtggata ttttgggggt gttactgccc taagcagaga gcagtttttc 850
 aaggtgaatg gattctctaa caactactgg ggatggggag gcgaagacga 900
 tgacctcaga ctcagggttg agctccaaag aatgaaaatt tcccggcccc 950
 tgcctgaagt gggtaaatat acaatggtct tccacactag agacaaaggc 1000
 aatgaggtga acgcagaacg gatgaagctc ttacaccaag tgtcacgagt 1050
 ctggagaaca gatgggttga gtagttgttc ttataaatta gtatctgtgg 1100
 aacacaatcc tttatatatc aacatcacag tggatttctg gtttggtgca 1150
 tgaccctgga tcttttggtg atgtttggaa gaactgattc tttgtttgca 1200
 ataattttgg cctagagact tcaaatagta gcacacatta agaacctgtt 1250
 acagctcatt gttgagctga atttttcctt tttgtatttt cttagcagag 1300
 ctctggtga thtagagtat aaaacagttg taacaagaca gctttcttag 1350
 tcattttgat catgagggtt aaatattgta atatggatac ttgaaggact 1400
 ttatataaaa ggatgactca aaggataaaa tgaacgctat ttgaggactc 1450
 tggttgaagg agatttattt aaatttgaag taatatatta tgggataaaa 1500
 ggccacagga aataagactg ctgaatgtct gagagaacca gagttgttct 1550

cgtccaaggt agaaagggtac gaagatacaa tactgttatt cattttatcct 1600
 gtacaatcat ctgtgaagtg gtggtgtcag gtgagaaggc gtccacaaaa 1650
 gaggggagaa aaggcgacga atcaggacac agtgaacttg ggaatgaaga 1700
 ggtagcagga ggggtggagtg tcggctgcaa aggcagcagt agctgagctg 1750
 gttgcaggtg ctgatagcct tcaggggagg acctgcccag gtatgccttc 1800
 cagtgatgcc caccagagaa tacattctct attagttttt aaagagtttt 1850
 tgtaaaatga ttttgtacaa gtaggatatg aattagcagt ttacaagttt 1900
 acatattaac taataataaa tatgtctatc aaatacctct gtagtaaaat 1950
 gtgaaaaagc aaaa 1964

<210> 42
 <211> 344
 <212> PRT
 <213> Homo Sapien

<400> 42
 Met Gly Phe Asn Leu Thr Phe His Leu Ser Tyr Lys Phe Arg Leu
 1 5 10 15
 Leu Leu Leu Leu Thr Leu Cys Leu Thr Val Val Gly Trp Ala Thr
 20 25 30
 Ser Asn Tyr Phe Val Gly Ala Ile Gln Glu Ile Pro Lys Ala Lys
 35 40 45
 Glu Phe Met Ala Asn Phe His Lys Thr Leu Ile Leu Gly Lys Gly
 50 55 60
 Lys Thr Leu Thr Asn Glu Ala Ser Thr Lys Lys Val Glu Leu Asp
 65 70 75
 Asn Cys Pro Ser Val Ser Pro Tyr Leu Arg Gly Gln Ser Lys Leu
 80 85 90
 Ile Phe Lys Pro Asp Leu Thr Leu Glu Glu Val Gln Ala Glu Asn
 95 100 105
 Pro Lys Val Ser Arg Gly Arg Tyr Arg Pro Gln Glu Cys Lys Ala
 110 115 120
 Leu Gln Arg Val Ala Ile Leu Val Pro His Arg Asn Arg Glu Lys
 125 130 135
 His Leu Met Tyr Leu Leu Glu His Leu His Pro Phe Leu Gln Arg
 140 145 150
 Gln Gln Leu Asp Tyr Gly Ile Tyr Val Ile His Gln Ala Glu Gly
 155 160 165

Lys	Lys	Phe	Asn	Arg	Ala	Lys	Leu	Leu	Asn	Val	Gly	Tyr	Leu	Glu	170	175	180
Ala	Leu	Lys	Glu	Glu	Asn	Trp	Asp	Cys	Phe	Ile	Phe	His	Asp	Val	185	190	195
Asp	Leu	Val	Pro	Glu	Asn	Asp	Phe	Asn	Leu	Tyr	Lys	Cys	Glu	Glu	200	205	210
His	Pro	Lys	His	Leu	Val	Val	Gly	Arg	Asn	Ser	Thr	Gly	Tyr	Arg	215	220	225
Leu	Arg	Tyr	Ser	Gly	Tyr	Phe	Gly	Gly	Val	Thr	Ala	Leu	Ser	Arg	230	235	240
Glu	Gln	Phe	Phe	Lys	Val	Asn	Gly	Phe	Ser	Asn	Asn	Tyr	Trp	Gly	245	250	255
Trp	Gly	Gly	Glu	Asp	Asp	Asp	Leu	Arg	Leu	Arg	Val	Glu	Leu	Gln	260	265	270
Arg	Met	Lys	Ile	Ser	Arg	Pro	Leu	Pro	Glu	Val	Gly	Lys	Tyr	Thr	275	280	285
Met	Val	Phe	His	Thr	Arg	Asp	Lys	Gly	Asn	Glu	Val	Asn	Ala	Glu	290	295	300
Arg	Met	Lys	Leu	Leu	His	Gln	Val	Ser	Arg	Val	Trp	Arg	Thr	Asp	305	310	315
Gly	Leu	Ser	Ser	Cys	Ser	Tyr	Lys	Leu	Val	Ser	Val	Glu	His	Asn	320	325	330
Pro	Leu	Tyr	Ile	Asn	Ile	Thr	Val	Asp	Phe	Trp	Phe	Gly	Ala		335	340	

<210> 43

<211> 485

<212> DNA

<213> Homo Sapien

<400> 43

gctcaagacc cagcagtggg acagccagac agacggcacg atggcactga 50

gctcccagat ctgggcccgt tgccctcctgc tcctcctcct cctcgccagc 100

ctgaccagtg gctctgtttt cccacaacag acgggacaac ttgcagagct 150

gcaaccccag gacagagctg gagccagggc cagctggatg cccatgttcc 200

agaggcgaag gaggcgagac acccatttcc ccatctgcat tttctgctgc 250

ggctgctgtc atcgatcaaa gtgtgggatg tgctgcaaga cgtagaacct 300

acctgccctg ccccgctccc ctcccttctt tatttattcc tgctgcccc 350

gaacataggt cttggaataa aatggctggg tcttttggtt tccaaaaaaa 400

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 450

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa 485

<210> 44

<211> 84

<212> PRT

<213> Homo Sapien

<400> 44

Met	Ala	Leu	Ser	Ser	Gln	Ile	Trp	Ala	Ala	Cys	Leu	Leu	Leu	Leu
1				5					10					15

Leu	Leu	Leu	Ala	Ser	Leu	Thr	Ser	Gly	Ser	Val	Phe	Pro	Gln	Gln
				20					25					30

Thr	Gly	Gln	Leu	Ala	Glu	Leu	Gln	Pro	Gln	Asp	Arg	Ala	Gly	Ala
				35					40					45

Arg	Ala	Ser	Trp	Met	Pro	Met	Phe	Gln	Arg	Arg	Arg	Arg	Arg	Asp
				50					55					60

Thr	His	Phe	Pro	Ile	Cys	Ile	Phe	Cys	Cys	Gly	Cys	Cys	His	Arg
				65					70					75

Ser	Lys	Cys	Gly	Met	Cys	Cys	Lys	Thr
				80				

<210> 45

<211> 1076

<212> DNA

<213> Homo Sapien

<400> 45

gtggcttcat ttcagtggct gacttccaga gagcaatatg gctgggtccc 50

caacatgcct caccctcatc tatatccttt gccagctcac agggtcagca 100

gcctctggac ccgtgaaaga gctggctcgtt tccgttggtg gggccgtgac 150

tttccccctg aagtccaaag taaagcaagt tgactctatt gtctggacct 200

tcaacacaac ccctcttgtc accatacagc cagaaggggg cactatcata 250

gtgacccaaa atcgtaatag ggagagagta gacttcccag atggaggcta 300

ctccctgaag ctcagcaaac tgaagaagaa tgactcaggg atctactatg 350

tggggatata cagctcatca ctccagcagc cctccacca ggagtacgtg 400

ctgcatgtct acgagcacct gtcaaagcct aaagtcacca tgggtctgca 450

gagcaataag aatggcacct gtgtgaccaa tctgacatgc tgcattggaac 500

atggggaaga ggatgtgatt tatacctgga aggcctggg gcaagcagcc 550

aatgagtccc ataatgggtc catcctcccc atctcctgga gatggggaga 600
aagtgatatg accttcatct gcgttgccag gaaccctgtc agcagaaact 650
tctcaagccc catccttgcc aggaagctct gtgaagggtc tgctgatgac 700
ccagattcct ccatgggtcct cctgtgtctc ctggttggtc ccctcctgct 750
cagtctcttt gtactggggc tatttctttg gtttctgaag agagagagac 800
aagaagagta cattgaagag aagaagagag tggacatttg tcgggaaact 850
cctaacatat gccccattc tggagagaac acagagtacg acacaatccc 900
tcacactaat agaacaatcc taaaggaaga tccagcaaat acgggtttact 950
ccactgtgga aataccgaaa aagatggaaa atccccactc actgctcacg 1000
atgccagaca caccaaggct atttgctat gagaatgtta tctagacagc 1050
agtgactccc cctaagtctc tgctca 1076

<210> 46
<211> 335
<212> PRT
<213> Homo Sapien

<400> 46
Met Ala Gly Ser Pro Thr Cys Leu Thr Leu Ile Tyr Ile Leu Trp
1 5 10 15
Gln Leu Thr Gly Ser Ala Ala Ser Gly Pro Val Lys Glu Leu Val
20 25 30
Gly Ser Val Gly Gly Ala Val Thr Phe Pro Leu Lys Ser Lys Val
35 40 45
Lys Gln Val Asp Ser Ile Val Trp Thr Phe Asn Thr Thr Pro Leu
50 55 60
Val Thr Ile Gln Pro Glu Gly Gly Thr Ile Ile Val Thr Gln Asn
65 70 75
Arg Asn Arg Glu Arg Val Asp Phe Pro Asp Gly Gly Tyr Ser Leu
80 85 90
Lys Leu Ser Lys Leu Lys Lys Asn Asp Ser Gly Ile Tyr Tyr Val
95 100 105
Gly Ile Tyr Ser Ser Ser Leu Gln Gln Pro Ser Thr Gln Glu Tyr
110 115 120
Val Leu His Val Tyr Glu His Leu Ser Lys Pro Lys Val Thr Met
125 130 135
Gly Leu Gln Ser Asn Lys Asn Gly Thr Cys Val Thr Asn Leu Thr
140 145 150

Cys	Cys	Met	Glu	His	Gly	Glu	Glu	Asp	Val	Ile	Tyr	Thr	Trp	Lys
				155					160					165
Ala	Leu	Gly	Gln	Ala	Ala	Asn	Glu	Ser	His	Asn	Gly	Ser	Ile	Leu
				170					175					180
Pro	Ile	Ser	Trp	Arg	Trp	Gly	Glu	Ser	Asp	Met	Thr	Phe	Ile	Cys
				185					190					195
Val	Ala	Arg	Asn	Pro	Val	Ser	Arg	Asn	Phe	Ser	Ser	Pro	Ile	Leu
				200					205					210
Ala	Arg	Lys	Leu	Cys	Glu	Gly	Ala	Ala	Asp	Asp	Pro	Asp	Ser	Ser
				215					220					225
Met	Val	Leu	Leu	Cys	Leu	Leu	Leu	Val	Pro	Leu	Leu	Leu	Ser	Leu
				230					235					240
Phe	Val	Leu	Gly	Leu	Phe	Leu	Trp	Phe	Leu	Lys	Arg	Glu	Arg	Gln
				245					250					255
Glu	Glu	Tyr	Ile	Glu	Glu	Lys	Lys	Arg	Val	Asp	Ile	Cys	Arg	Glu
				260					265					270
Thr	Pro	Asn	Ile	Cys	Pro	His	Ser	Gly	Glu	Asn	Thr	Glu	Tyr	Asp
				275					280					285
Thr	Ile	Pro	His	Thr	Asn	Arg	Thr	Ile	Leu	Lys	Glu	Asp	Pro	Ala
				290					295					300
Asn	Thr	Val	Tyr	Ser	Thr	Val	Glu	Ile	Pro	Lys	Lys	Met	Glu	Asn
				305					310					315
Pro	His	Ser	Leu	Leu	Thr	Met	Pro	Asp	Thr	Pro	Arg	Leu	Phe	Ala
				320					325					330
Tyr	Glu	Asn	Val	Ile										
				335										

<210> 47

<211> 766

<212> DNA

<213> Homo Sapien

<400> 47

ggctcgagcg tttctgagcc aggggtgacc atgacctgct gcgaaggatg 50

gacatcctgc aatggattca gcctgctggt tctactgctg ttaggagtag 100

ttctcaatgc gatacctcta attgtcagct tagttgagga agaccaat 150

tctcaaaacc ccattctcttg ctttgagtgg tgggtcccag gaattatagg 200

agcaggtctg atggccattc cagcaacaac aatgtccttg acagcaagaa 250

aaagagcgtg ctgcaacaac agaactggaa tgtttctttc atcatttttc 300

agtgtgatca cagtcattgg tgcctgttat tgcattgctga tatccatcca 350
 ggctctctta aaaggtcctc tcatgtgtaa ttctccaagc aacagtaatg 400
 ccaattgtga attttcattg aaaaacatca gtgacattca tccagaatcc 450
 ttcaacttgc agtgggtttt caatgactct tgtgcacctc ctactgggtt 500
 caataaaccc accagtaacg acaccatggc gagtggctgg agagcatcta 550
 gtttccactt cgattctgaa gaaaacaaac ataggcttat ccacttctca 600
 gtatttttag gtctattgct tgttggaatt ctggaggctc tgtttgggct 650
 cagtcagata gtcacgggtt tccttggctg tctgtgtgga gtctctaagc 700
 gaagaagtca aattgtgtag tttaatggga ataaaatgta agtatcagta 750
 gtttgaaaaa aaaaaa 766

<210> 48
 <211> 229
 <212> PRT
 <213> Homo Sapien

<400> 48
 Met Thr Cys Cys Glu Gly Trp Thr Ser Cys Asn Gly Phe Ser Leu
 1 5 10 15
 Leu Val Leu Leu Leu Leu Gly Val Val Leu Asn Ala Ile Pro Leu
 20 25 30
 Ile Val Ser Leu Val Glu Glu Asp Gln Phe Ser Gln Asn Pro Ile
 35 40 45
 Ser Cys Phe Glu Trp Trp Phe Pro Gly Ile Ile Gly Ala Gly Leu
 50 55 60
 Met Ala Ile Pro Ala Thr Thr Met Ser Leu Thr Ala Arg Lys Arg
 65 70 75
 Ala Cys Cys Asn Asn Arg Thr Gly Met Phe Leu Ser Ser Phe Phe
 80 85 90
 Ser Val Ile Thr Val Ile Gly Ala Leu Tyr Cys Met Leu Ile Ser
 95 100 105
 Ile Gln Ala Leu Leu Lys Gly Pro Leu Met Cys Asn Ser Pro Ser
 110 115 120
 Asn Ser Asn Ala Asn Cys Glu Phe Ser Leu Lys Asn Ile Ser Asp
 125 130 135
 Ile His Pro Glu Ser Phe Asn Leu Gln Trp Phe Phe Asn Asp Ser
 140 145 150
 Cys Ala Pro Pro Thr Gly Phe Asn Lys Pro Thr Ser Asn Asp Thr

	155		160		165									
Met	Ala	Ser	Gly	Trp	Arg	Ala	Ser	Ser	Phe	His	Phe	Asp	Ser	Glu
				170					175					180
Glu	Asn	Lys	His	Arg	Leu	Ile	His	Phe	Ser	Val	Phe	Leu	Gly	Leu
				185					190					195
Leu	Leu	Val	Gly	Ile	Leu	Glu	Val	Leu	Phe	Gly	Leu	Ser	Gln	Ile
				200					205					210
Val	Ile	Gly	Phe	Leu	Gly	Cys	Leu	Cys	Gly	Val	Ser	Lys	Arg	Arg
				215					220					225

Ser Gln Ile Val

<210> 49
 <211> 636
 <212> DNA
 <213> Homo Sapien

<400> 49
 atccgttctc tgcgctgccca gctcaggtga gccctcgcca aggtgacctc 50
 gcaggacact ggtgaaggag cagtgaggaa cctgcagagt cacacagttg 100
 ctgaccaatt gagctgtgag cctggagcag atccgtgggc tgcagacccc 150
 cgccccagtg cctctcccc tgcagccctg cccctcgaac tgtgacatgg 200
 agagagtgac cctggccctt ctctactgg caggcctgac tgccttgga 250
 gccaatgacc catttgccaa taaagacgat cccttctact atgactggaa 300
 aaacctgcag ctgagcggac tgatctgcgg agggctcctg gccattgctg 350
 ggatcgcggc agttctgagt ggcaaatgca aatacaagag cagccagaag 400
 cagcacagtc ctgtacctga gaaggccatc cactcatca ctccaggctc 450
 tgccactact tgctgagcac aggactggcc tccagggatg gcctgaagcc 500
 taacactggc cccagcacc tcctcccctg ggaggcctta tcctcaagga 550
 aggacttctc tccaagggca ggctgttagg cccctttctg atcaggaggc 600
 ttctttatga attaaactcg cccaccacc ccctca 636

<210> 50
 <211> 89
 <212> PRT
 <213> Homo Sapien

<400> 50
 Met Glu Arg Val Thr Leu Ala Leu Leu Leu Leu Ala Gly Leu Thr
 1 5 10 15

Ala	Leu	Glu	Ala	Asn	Asp	Pro	Phe	Ala	Asn	Lys	Asp	Asp	Pro	Phe
				20					25					30
Tyr	Tyr	Asp	Trp	Lys	Asn	Leu	Gln	Leu	Ser	Gly	Leu	Ile	Cys	Gly
				35					40					45
Gly	Leu	Leu	Ala	Ile	Ala	Gly	Ile	Ala	Ala	Val	Leu	Ser	Gly	Lys
				50					55					60
Cys	Lys	Tyr	Lys	Ser	Ser	Gln	Lys	Gln	His	Ser	Pro	Val	Pro	Glu
				65					70					75
Lys	Ala	Ile	Pro	Leu	Ile	Thr	Pro	Gly	Ser	Ala	Thr	Thr	Cys	
				80					85					

<210> 51

<211> 1734

<212> DNA

<213> Homo Sapien

<400> 51

```

gtggactctg agaagcccag gcagttgagg acaggagaga gaaggctgca 50
gacccagagg gagggaggac agggagtcgg aaggaggagg acagaggagg 100
gcacagagac gcagagcaag ggcggcaagg aggagaccct ggtgggagga 150
agacactctg gagagagagg gggctgggca gagatgaagt tccagggggc 200
cctggcctgc ctctgctgg ccctctgcct gggcagtggg gaggctggcc 250
ccctgcagag cggagaggaa agcactggga caaatattgg ggaggccctt 300
ggacatggcc tgggagacgc cctgagcgaa ggggtgggaa aggccattgg 350
caaagaggcc ggaggggcag ctggctctaa agtcagttag gcccttggcc 400
aagggaccag agaagcagtt ggcactggag tcaggcaggt tccaggcttt 450
ggcgcagcag atgctttggg caacagggtc ggggaagcag cccatgctct 500
gggaaacact gggcacgaga ttggcagaca ggcagaagat gtcattcgac 550
acggagcaga tgctgtccgc ggctcctggc aggggggtgcc tggccacagt 600
ggtgcttggg aaacttctgg aggccatggc atctttggct ctcaaggtgg 650
ccttgagggc cagggccagg gcaatcctgg aggtctgggg actccgtggg 700
tccacggata ccccgaaac tcagcaggca gctttggaat gaatcctcag 750
ggagctccct ggggtcaagg aggcaatgga gggccaccaa actttgggac 800
caacactcag ggagctgtgg ccagcctgg ctatggttca gtgagagcca 850
gcaaccagaa tgaagggtgc acgaatcccc caccatctgg ctcaggtgga 900

```

ggctccagca actctggggg aggcagcggc tcacagtcgg gcagcagtgg 950
 cagtggcagc aatggtgaca acaacaatgg cagcagcagt ggtggcagca 1000
 gcagtggcag cagcagtggc agcagcagtg gcggcagcag tggcggcagc 1050
 agtgggtggca gcagtggcaa cagtgggtggc agcagaggtg acagcggcag 1100
 tgagtcctcc tggggatcca gcaccggctc ctctccggc aaccacggtg 1150
 ggagcggcgg aggaaatgga cataaaccgg ggtgtgaaaa gccagggaat 1200
 gaagcccgcg ggagcgggga atctgggatt cagggcttca gaggacaggg 1250
 agtttccagc aacatgaggg aaataagcaa agagggcaat cgcctccttg 1300
 gaggctcttg agacaattat cgggggcaag ggtcgagctg gggcagtgga 1350
 ggaggtgacg ctgttggttg agtcaatact gtgaactctg agacgtctcc 1400
 tgggatgttt aactttgaca ctttctggaa gaatttttaa tccaagctgg 1450
 gtttcatcaa ctgggatgcc ataaacaagg accagagaag ctctcgcac 1500
 ccgtgacctc cagacaagga gccaccagat tggatgggag cccccacact 1550
 ccctccttaa aacaccaccc tctcatcact aatctcagcc cttgcccttg 1600
 aaataaacct tagctgcccc aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1650
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1700
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 1734

<210> 52
 <211> 440
 <212> PRT
 <213> Homo Sapien

<400> 52
 Met Lys Phe Gln Gly Pro Leu Ala Cys Leu Leu Leu Ala Leu Cys
 1 5 10 15
 Leu Gly Ser Gly Glu Ala Gly Pro Leu Gln Ser Gly Glu Glu Ser
 20 25 30
 Thr Gly Thr Asn Ile Gly Glu Ala Leu Gly His Gly Leu Gly Asp
 35 40 45
 Ala Leu Ser Glu Gly Val Gly Lys Ala Ile Gly Lys Glu Ala Gly
 50 55 60
 Gly Ala Ala Gly Ser Lys Val Ser Glu Ala Leu Gly Gln Gly Thr
 65 70 75
 Arg Glu Ala Val Gly Thr Gly Val Arg Gln Val Pro Gly Phe Gly
 80 85 90

Ala	Ala	Asp	Ala	Leu	Gly	Asn	Arg	Val	Gly	Glu	Ala	Ala	His	Ala		95	100	105
Leu	Gly	Asn	Thr	Gly	His	Glu	Ile	Gly	Arg	Gln	Ala	Glu	Asp	Val		110	115	120
Ile	Arg	His	Gly	Ala	Asp	Ala	Val	Arg	Gly	Ser	Trp	Gln	Gly	Val		125	130	135
Pro	Gly	His	Ser	Gly	Ala	Trp	Glu	Thr	Ser	Gly	Gly	His	Gly	Ile		140	145	150
Phe	Gly	Ser	Gln	Gly	Gly	Leu	Gly	Gly	Gln	Gly	Gln	Gly	Asn	Pro		155	160	165
Gly	Gly	Leu	Gly	Thr	Pro	Trp	Val	His	Gly	Tyr	Pro	Gly	Asn	Ser		170	175	180
Ala	Gly	Ser	Phe	Gly	Met	Asn	Pro	Gln	Gly	Ala	Pro	Trp	Gly	Gln		185	190	195
Gly	Gly	Asn	Gly	Gly	Pro	Pro	Asn	Phe	Gly	Thr	Asn	Thr	Gln	Gly		200	205	210
Ala	Val	Ala	Gln	Pro	Gly	Tyr	Gly	Ser	Val	Arg	Ala	Ser	Asn	Gln		215	220	225
Asn	Glu	Gly	Cys	Thr	Asn	Pro	Pro	Pro	Ser	Gly	Ser	Gly	Gly	Gly		230	235	240
Ser	Ser	Asn	Ser	Gly	Gly	Gly	Ser	Gly	Ser	Gln	Ser	Gly	Ser	Ser		245	250	255
Gly	Ser	Gly	Ser	Asn	Gly	Asp	Asn	Asn	Asn	Gly	Ser	Ser	Ser	Gly		260	265	270
Gly	Ser	Ser	Ser	Gly	Ser	Ser	Ser	Gly	Ser	Ser	Ser	Gly	Gly	Ser		275	280	285
Ser	Gly	Gly	Ser	Ser	Gly	Gly	Ser	Ser	Gly	Asn	Ser	Gly	Gly	Ser		290	295	300
Arg	Gly	Asp	Ser	Gly	Ser	Glu	Ser	Ser	Trp	Gly	Ser	Ser	Thr	Gly		305	310	315
Ser	Ser	Ser	Gly	Asn	His	Gly	Gly	Ser	Gly	Gly	Gly	Asn	Gly	His		320	325	330
Lys	Pro	Gly	Cys	Glu	Lys	Pro	Gly	Asn	Glu	Ala	Arg	Gly	Ser	Gly		335	340	345
Glu	Ser	Gly	Ile	Gln	Gly	Phe	Arg	Gly	Gln	Gly	Val	Ser	Ser	Asn		350	355	360
Met	Arg	Glu	Ile	Ser	Lys	Glu	Gly	Asn	Arg	Leu	Leu	Gly	Gly	Ser		365	370	375

Gly	Asp	Asn	Tyr	Arg	Gly	Gln	Gly	Ser	Ser	Trp	Gly	Ser	Gly	Gly	380	385	390
Gly	Asp	Ala	Val	Gly	Gly	Val	Asn	Thr	Val	Asn	Ser	Glu	Thr	Ser	395	400	405
Pro	Gly	Met	Phe	Asn	Phe	Asp	Thr	Phe	Trp	Lys	Asn	Phe	Lys	Ser	410	415	420
Lys	Leu	Gly	Phe	Ile	Asn	Trp	Asp	Ala	Ile	Asn	Lys	Asp	Gln	Arg	425	430	435
Ser	Ser	Arg	Ile	Pro											440		

<210> 53

<211> 1676

<212> DNA

<213> Homo Sapien

<400> 53

```

ggagaagagg ttgtgtggga caagctgctc cgcacagaag gatgtcgctg 50
ctgagcctgc cctggctggg cctcagaccg gtggcaatgt ccccatggct 100
actcctgctg ctggttgtgg gctcctggct actcgcccgc atcctggctt 150
ggacctatgc cttctataac aactgccgcc ggctccagtg tttcccacag 200
ccccaaaac ggaactggtt ttggggtcac ctgggcctga tcaactctac 250
agaggagggc ttgaaggact cgaccagat gtcggccacc tattcccagg 300
gctttacggg atggctgggt cccatcatcc ccttcacgtt tttatgccac 350
cctgacacca tccggtctat caccaatgcc tcagctgcca ttgcacccaa 400
ggataatctc ttcacaggt tcctgaagcc ctggctggga gaagggatac 450
tgctgagtgg cggtgacaag tggagccgcc accgtcggat gctgacgccc 500
gccttccatt tcaacatcct gaagtcctat ataacgatct tcaacaagag 550
tgcaaacatc atgcttgaca agtggcagca cctggcctca gagggcagca 600
gtcgtctgga catgtttgag cacatcagcc tcatgacctt ggacagtcta 650
cagaaatgca tcttcagctt tgacagccat tgtcaggaga ggcccagtga 700
atatattgcc accatcttgg agctcagtgc ccttgtagag aaaagaagcc 750
agcatatcct ccagcacatg gactttctgt attacctctc ccatgacggg 800
cggcgcttcc acagggcctg ccgcctgggt catgacttca cagacgctgt 850
catccgggag cggcgtcgca ccctccccac tcagggtatt gatgattttt 900
tcaaagacaa agccaagtcc aagactttgg atttcattga tgtgcttctg 950

```

ctgagcaagg atgaagatgg gaaggcattg tcagatgagg atataagagc 1000
 agaggctgac accttcatgt ttggaggcca tgacaccacg gccagtggcc 1050
 tctcctgggt cctgtacaac cttgcgaggc acccagaata ccaggagcgc 1100
 tgccgacagg aggtgcaaga gcttctgaag gaccgcatc ctaaagagat 1150
 tgaatgggac gacctggccc agctgccctt cctgaccatg tgcgtgaagg 1200
 agagcctgag gttacatccc ccagctccct tcctctcccg atgctgcacc 1250
 caggacattg ttctcccaga tggccgagtc atccccaaag gcattacctg 1300
 cctcatcgat attatagggg tccatcacia cccaactgtg tggccggatc 1350
 ctgaggtcta cgaccccttc cgctttgacc cagagaacag caaggggagg 1400
 tcacctctgg cttttattcc tttctccgca gggcccagga actgcatcgg 1450
 gcaggcgttc gccatggcgg agatgaaagt ggtcctggcg ttgatgctgc 1500
 tgcacttccg gttcctgcc aaccacactg agccccgcag gaagctggaa 1550
 ttgatcatgc gcgccgaggg cgggctttgg ctgcgggtgg agcccctgaa 1600
 tgtaggcttg cagtgacttt ctgaccatc cacctgtttt tttgcagatt 1650
 gtcatgaata aaacggtgct gtcaaa 1676

<210> 54

<211> 524

<212> PRT

<213> Homo Sapien

<400> 54

Met	Ser	Leu	Leu	Ser	Leu	Pro	Trp	Leu	Gly	Leu	Arg	Pro	Val	Ala
1				5					10					15
Met	Ser	Pro	Trp	Leu	Leu	Leu	Leu	Leu	Val	Val	Gly	Ser	Trp	Leu
				20					25					30
Leu	Ala	Arg	Ile	Leu	Ala	Trp	Thr	Tyr	Ala	Phe	Tyr	Asn	Asn	Cys
				35					40					45
Arg	Arg	Leu	Gln	Cys	Phe	Pro	Gln	Pro	Pro	Lys	Arg	Asn	Trp	Phe
				50					55					60
Trp	Gly	His	Leu	Gly	Leu	Ile	Thr	Pro	Thr	Glu	Glu	Gly	Leu	Lys
				65					70					75
Asp	Ser	Thr	Gln	Met	Ser	Ala	Thr	Tyr	Ser	Gln	Gly	Phe	Thr	Val
				80					85					90
Trp	Leu	Gly	Pro	Ile	Ile	Pro	Phe	Ile	Val	Leu	Cys	His	Pro	Asp
				95					100					105

Thr	Ile	Arg	Ser	Ile	Thr	Asn	Ala	Ser	Ala	Ala	Ile	Ala	Pro	Lys	110	115	120
Asp	Asn	Leu	Phe	Ile	Arg	Phe	Leu	Lys	Pro	Trp	Leu	Gly	Glu	Gly	125	130	135
Ile	Leu	Leu	Ser	Gly	Gly	Asp	Lys	Trp	Ser	Arg	His	Arg	Arg	Met	140	145	150
Leu	Thr	Pro	Ala	Phe	His	Phe	Asn	Ile	Leu	Lys	Ser	Tyr	Ile	Thr	155	160	165
Ile	Phe	Asn	Lys	Ser	Ala	Asn	Ile	Met	Leu	Asp	Lys	Trp	Gln	His	170	175	180
Leu	Ala	Ser	Glu	Gly	Ser	Ser	Arg	Leu	Asp	Met	Phe	Glu	His	Ile	185	190	195
Ser	Leu	Met	Thr	Leu	Asp	Ser	Leu	Gln	Lys	Cys	Ile	Phe	Ser	Phe	200	205	210
Asp	Ser	His	Cys	Gln	Glu	Arg	Pro	Ser	Glu	Tyr	Ile	Ala	Thr	Ile	215	220	225
Leu	Glu	Leu	Ser	Ala	Leu	Val	Glu	Lys	Arg	Ser	Gln	His	Ile	Leu	230	235	240
Gln	His	Met	Asp	Phe	Leu	Tyr	Tyr	Leu	Ser	His	Asp	Gly	Arg	Arg	245	250	255
Phe	His	Arg	Ala	Cys	Arg	Leu	Val	His	Asp	Phe	Thr	Asp	Ala	Val	260	265	270
Ile	Arg	Glu	Arg	Arg	Arg	Thr	Leu	Pro	Thr	Gln	Gly	Ile	Asp	Asp	275	280	285
Phe	Phe	Lys	Asp	Lys	Ala	Lys	Ser	Lys	Thr	Leu	Asp	Phe	Ile	Asp	290	295	300
Val	Leu	Leu	Leu	Ser	Lys	Asp	Glu	Asp	Gly	Lys	Ala	Leu	Ser	Asp	305	310	315
Glu	Asp	Ile	Arg	Ala	Glu	Ala	Asp	Thr	Phe	Met	Phe	Gly	Gly	His	320	325	330
Asp	Thr	Thr	Ala	Ser	Gly	Leu	Ser	Trp	Val	Leu	Tyr	Asn	Leu	Ala	335	340	345
Arg	His	Pro	Glu	Tyr	Gln	Glu	Arg	Cys	Arg	Gln	Glu	Val	Gln	Glu	350	355	360
Leu	Leu	Lys	Asp	Arg	Asp	Pro	Lys	Glu	Ile	Glu	Trp	Asp	Asp	Leu	365	370	375
Ala	Gln	Leu	Pro	Phe	Leu	Thr	Met	Cys	Val	Lys	Glu	Ser	Leu	Arg	380	385	390

Leu	His	Pro	Pro	Ala	Pro	Phe	Ile	Ser	Arg	Cys	Cys	Thr	Gln	Asp	
				395					400					405	
Ile	Val	Leu	Pro	Asp	Gly	Arg	Val	Ile	Pro	Lys	Gly	Ile	Thr	Cys	
				410					415					420	
Leu	Ile	Asp	Ile	Ile	Gly	Val	His	His	Asn	Pro	Thr	Val	Trp	Pro	
				425					430					435	
Asp	Pro	Glu	Val	Tyr	Asp	Pro	Phe	Arg	Phe	Asp	Pro	Glu	Asn	Ser	
				440					445					450	
Lys	Gly	Arg	Ser	Pro	Leu	Ala	Phe	Ile	Pro	Phe	Ser	Ala	Gly	Pro	
				455					460					465	
Arg	Asn	Cys	Ile	Gly	Gln	Ala	Phe	Ala	Met	Ala	Glu	Met	Lys	Val	
				470					475					480	
Val	Leu	Ala	Leu	Met	Leu	Leu	His	Phe	Arg	Phe	Leu	Pro	Asp	His	
				485					490					495	
Thr	Glu	Pro	Arg	Arg	Lys	Leu	Glu	Leu	Ile	Met	Arg	Ala	Glu	Gly	
				500					505					510	
Gly	Leu	Trp	Leu	Arg	Val	Glu	Pro	Leu	Asn	Val	Gly	Leu	Gln		
				515					520						

<210> 55
 <211> 644
 <212> DNA
 <213> Homo Sapien

<400> 55
 atcgcatcaa ttgggagtag catcttcctc atgggaccag tgaaacagct 50
 gaagcgaatg tttgagccta ctggtttgat tgcaactatc atggtgctgt 100
 tgtgttttgc acttaccttg tgttctgcct tttggtggca taacaaggga 150
 cttgcactta tcttctgcat tttgcagtct ttggcattga cgtggtacag 200
 cctttccttc ataccatttg caagggatgc tgtgaagaag tgttttgccg 250
 tgtgtcttgc ataattcatg gccagtttta tgaagctttg gaaggcacta 300
 tggacagaag ctggtggaca gttttgtaac tatcttcgaa acctctgtct 350
 tacagacatg tgccttttat cttgcagcaa tgtgttgctt gtgattcgaa 400
 catttgaggg ttacttttgg aagcaacaat acattctcga acctgaatgt 450
 cagtagcaca ggatgagaag tgggttctgt atcttgtgga gtggaatctt 500
 cctcatgtac ctgtttcctc tctggatggt gtccactga attcccatga 550
 atacaaacct attcagcaac agcaaaaaaa aaaaaaaaaa aaaaaaaaaa 600

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 644

<210> 56

<211> 77

<212> PRT

<213> Homo Sapien

<400> 56

Met Gly Pro Val Lys Gln Leu Lys Arg Met Phe Glu Pro Thr Arg
1 5 10 15

Leu Ile Ala Thr Ile Met Val Leu Leu Cys Phe Ala Leu Thr Leu
20 25 30

Cys Ser Ala Phe Trp Trp His Asn Lys Gly Leu Ala Leu Ile Phe
35 40 45

Cys Ile Leu Gln Ser Leu Ala Leu Thr Trp Tyr Ser Leu Ser Phe
50 55 60

Ile Pro Phe Ala Arg Asp Ala Val Lys Lys Cys Phe Ala Val Cys
65 70 75

Leu Ala

<210> 57

<211> 3334

<212> DNA

<213> Homo Sapien

<400> 57

cggctcgcgc tgcagccgaa tcggctcgag gggcagtgga gcacccagca 50

ggccgcgaac atgctctgtc tgtgcctgta cgtgccgggc atcggggaag 100

cccagaccga gttccagtac tttgagtcga aggggctccc tgccgagctg 150

aagtccattt tcaagctcag tgtcttcac cctcccagg aattctccac 200

ctaccgccag tggaagcaga aaattgtaca agctggagat aaggaccttg 250

atgggcagct agactttgaa gaatttgtcc attatctcca agatcatgag 300

aagaagctga ggctggtggt taagattttg gacaaaaaga atgatggacg 350

cattgacgcg caggagatca tgcagtcctt gcgggacttg ggagtcaaga 400

tatctgaaca gcaggcagaa aaaatttctca agagcatgga taaaaacggc 450

acgatgacca tcgactggaa cgagtggaga gactaccacc tcctccacc 500

cgtggaaaac atccccgaga tcatcctcta ctggaagcat tccacgatct 550

ttgatgtggg tgagaatcta acgggtcccg atgagttcac agtggaggag 600

aggcagacgg ggatgtggtg gagacacctg gtggcaggag gtggggcagg 650

ggccgtatcc agaacctgca cggccccccct ggacaggctc aaggtgctca 700
 tgcagggtcca tgccctccgc agcaacaaca tgggcatcgt tgggtggcttc 750
 actcagatga ttcgagaagg agggggccagg tcactctggc ggggcaatgg 800
 catcaacgtc ctcaaaattg cccccgaatc agccatcaaa ttcattggcct 850
 atgagcagat caagcgccct gttggtagtg accaggagac tctgaggatt 900
 cagcagagggc ttgtggcagg gtccttggca gggggccatcg cccagagcag 950
 catctaccca atggagggtcc tgaagacccg gatggcgctg cggaagacag 1000
 gccagtactc aggaatgctg gactgcgcca ggaggatcct ggccagagag 1050
 ggggtggccg ccttctacaa aggctatgtc cccaacatgc tgggcatcat 1100
 cccctatgcc ggcacgcacc ttgcagtcta cgagacgctc aagaatgcct 1150
 ggctgcagca ctatgcagtg aacagcgcgg accccggcgt gtttgtgctc 1200
 ctggcctgtg gcaccatgtc cagtacctgt ggccagctgg ccagctaccc 1250
 cctggcccta gtcaggaccc ggatgcaggc gcaagcctct attgagggcg 1300
 ctccggaggt gaccatgagc agcctcttca aacatatact gcggaccgag 1350
 ggggccttcg ggctgtacag ggggctggcc cccaacttca tgaaggatcat 1400
 cccagctgtg agcatcagct acgtgggtcta cgagaacctg aagatcaccc 1450
 tgggcgtgca gtcgcgggtga cggggggagg gccgcccggc agtggactcg 1500
 ctgatcctgg gccgcagcct ggggtgtgca gccatctcat tctgtgaatg 1550
 tgccaacact aagctgtctc gagccaagct gtgaaaacce tagacgcacc 1600
 cgcagggagg gtggggagag ctggcaggcc cagggttgt cctgctgacc 1650
 ccagcagacc ctctgttgg ttccagcgaa gaccacaggc attccttagg 1700
 gtccagggtc agcaggctcc gggctcacat gtgtaaggac aggacatttt 1750
 ctgcagtgcc tgccaatagt gagcttggag cctggaggcc ggcttagttc 1800
 ttccatttca cccttgcagc cagctgttgg ccacggcccc tgccctctgg 1850
 tctgccgtgc atctccctgt gccctcttgc tgctgctg tctgctgagg 1900
 taagggtggga ggagggtac agcccacatc ccacccctc gtccaatccc 1950
 ataatccatg atgaaagggt aggtcacgtg gcctcccagg cctgacttcc 2000
 caacctacag cattgacgcc aacttggctg tgaaggaaga ggaaaggatc 2050
 tggccttgtg gtcactggca tctgagccct gctgatggct ggggctctcg 2100

ggcattgcttg ggagtgcagg gggctcgggc tgcttggcct ggctgcacag 2150
 aaggcaagtg ctggggctca tgggtgctctg agctggcctg gaccctgtca 2200
 ggatgggccc cacctcagaa ccaaactcac tgtccccact gtggcatgag 2250
 ggcagtggag caccatgttt gagggcgaag ggcagagcgt ttgtgtgttc 2300
 tggggagggga aggaaaaggt gttggaggcc ttaattatgg actgttggga 2350
 aaagggtttt gtccagaagg acaagccgga caaatgagcg acttctgtgc 2400
 ttccagagga agacgagggg gcaggagctt ggctgactgc tcagagtctg 2450
 ttctgacgcc ctgggggttc ctgtccaacc ccagcagggg cgcagcggga 2500
 ccagcccccac attccacttg tgtcactgct tggaacctat ttattttgta 2550
 tttatttgaa cagagttagt tcctaactat ttttatagat ttgtttaatt 2600
 aatagcttgt cattttcaag ttcatTTTTT attcatattt atgttcatgg 2650
 ttgattgtac cttcccaagc ccgcccagtg ggatgggagg aggaggagaa 2700
 ggggggcctt gggccgctgc agtcacatct gtccagagaa attccttttg 2750
 ggactggagg cagaaaagcg gccagaaggc agcagccctg gtccttttcc 2800
 tttggcaggt tggggaaggg cttgccccca gccttaggat ttcagggttt 2850
 gactgggggc gtggagagag agggaggaac ctcaataacc ttgaaggtgg 2900
 aatccagtta tttcctgcgc tgcgagggtt tctttatttc actcttttct 2950
 gaatgtcaag gcagtgaggt gcctctcact gtgaatttgt ggtgggcggg 3000
 ggctggagga gaggggtggg ggctggctcc gtccctcca gccttctgct 3050
 gcccttgctt aacaatgccg gccaaactggc gacctcacgg ttgcacttcc 3100
 attccaccag aatgacctga tgaggaaatc ttcaatagga tgcaaagatc 3150
 aatgcaaaaa ttgttatata tgaacatata actggagtcg tcaaaaagca 3200
 aattaagaaa gaattggacg ttagaagttg tcatttaaag cagccttcta 3250
 ataaagttgt ttcaaagctg aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 3300
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 3334

<210> 58

<211> 469

<212> PRT

<213> Homo Sapien

<400> 58

Met Leu Cys Leu Cys Leu Tyr Val Pro Val Ile Gly Glu Ala Gln

1	5	10	15
Thr Glu Phe Gln Tyr Phe Glu Ser Lys Gly Leu Pro Ala Glu Leu	20	25	30
Lys Ser Ile Phe Lys Leu Ser Val Phe Ile Pro Ser Gln Glu Phe	35	40	45
Ser Thr Tyr Arg Gln Trp Lys Gln Lys Ile Val Gln Ala Gly Asp	50	55	60
Lys Asp Leu Asp Gly Gln Leu Asp Phe Glu Glu Phe Val His Tyr	65	70	75
Leu Gln Asp His Glu Lys Lys Leu Arg Leu Val Phe Lys Ile Leu	80	85	90
Asp Lys Lys Asn Asp Gly Arg Ile Asp Ala Gln Glu Ile Met Gln	95	100	105
Ser Leu Arg Asp Leu Gly Val Lys Ile Ser Glu Gln Gln Ala Glu	110	115	120
Lys Ile Leu Lys Ser Met Asp Lys Asn Gly Thr Met Thr Ile Asp	125	130	135
Trp Asn Glu Trp Arg Asp Tyr His Leu Leu His Pro Val Glu Asn	140	145	150
Ile Pro Glu Ile Ile Leu Tyr Trp Lys His Ser Thr Ile Phe Asp	155	160	165
Val Gly Glu Asn Leu Thr Val Pro Asp Glu Phe Thr Val Glu Glu	170	175	180
Arg Gln Thr Gly Met Trp Trp Arg His Leu Val Ala Gly Gly Gly	185	190	195
Ala Gly Ala Val Ser Arg Thr Cys Thr Ala Pro Leu Asp Arg Leu	200	205	210
Lys Val Leu Met Gln Val His Ala Ser Arg Ser Asn Asn Met Gly	215	220	225
Ile Val Gly Gly Phe Thr Gln Met Ile Arg Glu Gly Gly Ala Arg	230	235	240
Ser Leu Trp Arg Gly Asn Gly Ile Asn Val Leu Lys Ile Ala Pro	245	250	255
Glu Ser Ala Ile Lys Phe Met Ala Tyr Glu Gln Ile Lys Arg Leu	260	265	270
Val Gly Ser Asp Gln Glu Thr Leu Arg Ile His Glu Arg Leu Val	275	280	285
Ala Gly Ser Leu Ala Gly Ala Ile Ala Gln Ser Ser Ile Tyr Pro			

290	295	300
Met Glu Val Leu Lys Thr Arg Met Ala Leu Arg Lys Thr Gly Gln		
305	310	315
Tyr Ser Gly Met Leu Asp Cys Ala Arg Arg Ile Leu Ala Arg Glu		
320	325	330
Gly Val Ala Ala Phe Tyr Lys Gly Tyr Val Pro Asn Met Leu Gly		
335	340	345
Ile Ile Pro Tyr Ala Gly Ile Asp Leu Ala Val Tyr Glu Thr Leu		
350	355	360
Lys Asn Ala Trp Leu Gln His Tyr Ala Val Asn Ser Ala Asp Pro		
365	370	375
Gly Val Phe Val Leu Leu Ala Cys Gly Thr Met Ser Ser Thr Cys		
380	385	390
Gly Gln Leu Ala Ser Tyr Pro Leu Ala Leu Val Arg Thr Arg Met		
395	400	405
Gln Ala Gln Ala Ser Ile Glu Gly Ala Pro Glu Val Thr Met Ser		
410	415	420
Ser Leu Phe Lys His Ile Leu Arg Thr Glu Gly Ala Phe Gly Leu		
425	430	435
Tyr Arg Gly Leu Ala Pro Asn Phe Met Lys Val Ile Pro Ala Val		
440	445	450
Ser Ile Ser Tyr Val Val Tyr Glu Asn Leu Lys Ile Thr Leu Gly		
455	460	465

Val Gln Ser Arg

<210> 59

<211> 1658

<212> DNA

<213> Homo Sapien

<400> 59

```

ggaaggcagc ggcagctcca ctcagccagt acccagatac gctgggaacc 50
ttccccagcc atggcttccc tggggcagat cctcttctgg agcataatta 100
gcatcatcat tattctggct ggagcaattg cactcatcat tggctttggt 150
atttcaggga gacactccat cacagtcact actgtcgcct cagctgggaa 200
cattggggag gatggaatcc tgagctgcac ttttgaacct gacatcaaac 250
tttctgatat cgtgatacaa tggctgaagg aaggtgtttt aggcttggtc 300
catgagttca aagaaggcaa agatgagctg tcggagcagg atgaaatggt 350

```

cagaggccgg acagcagtgt ttgctgatca agtgatagtt ggcaatgcct 400
ctttgcggct gaaaaacgtg caactcacag atgctggcac ctacaaatgt 450
tatatcatca cttctaaagg caaggggaat gctaaccttg agtataaaac 500
tggagccttc agcatgccgg aagtgaatgt ggactataat gccagctcag 550
agaccttgcg gtgtgaggct ccccgatggg tccccagcc cacagtgggc 600
tgggcatccc aagttgacca gggagccaac ttctcggaag tctccaatac 650
cagctttgag ctgaactctg agaatgtgac catgaagggt gtgtctgtgc 700
tctacaatgt tacgatcaac aacacatact cctgtatgat tgaaaatgac 750
attgccaaag caacagggga tatcaaagt acagaatcgg agatcaaaag 800
gcgagatcac ctacagctgc taaactcaaa ggcttctctg tgtgtctctt 850
ctttctttgc catcagctgg gcacttctgc ctctcagccc ttacctgatg 900
ctaaaataat gtgccttggc cacaaaaaag catgcaaagt cattgttaca 950
acagggatct acagaactat ttcaccacca gatatgacct agttttatat 1000
ttctgggagg aaatgaattc atatctagaa gtctggagt agcaaacaag 1050
agcaagaaac aaaaagaagc caaaagcaga aggctccaat atgaacaaga 1100
taaattctatc ttcaaagaca tattagaagt tgggaaaata attcatgtga 1150
actagacaag tgtgttaaga gtgataagta aaatgcacgt ggagacaagt 1200
gcatccccag atctcaggga cctccccctg cctgtcacct ggggagttag 1250
aggacaggat agtgcattgt ctttgtctct gaatttttag ttatatgtgc 1300
tgtaatgttg ctctgaggaa gccctggaa agtctatccc aacatatcca 1350
catcttatat tccacaaatt aagctgtagt atgtacccta agacgctgct 1400
aattgactgc cacttcgcaa ctgaggggag gctgcatttt agtaatgggt 1450
caaatgattc actttttatg atgcttccaa aggtgccttg gcttctcttc 1500
ccaactgaca aatgccaaag ttgagaaaaa tgatcataat tttagcataa 1550
acagagcagt cggggacacc gattttataa ataaactgag caccttcttt 1600
ttaaacaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1650
aaaaaaaa 1658

<210> 60
<211> 282

<212> PRT

<213> Homo Sapien

<400> 60

Met	Ala	Ser	Leu	Gly	Gln	Ile	Leu	Phe	Trp	Ser	Ile	Ile	Ser	Ile	
1				5					10					15	
Ile	Ile	Ile	Leu	Ala	Gly	Ala	Ile	Ala	Leu	Ile	Ile	Gly	Phe	Gly	
				20					25					30	
Ile	Ser	Gly	Arg	His	Ser	Ile	Thr	Val	Thr	Thr	Val	Ala	Ser	Ala	
				35					40					45	
Gly	Asn	Ile	Gly	Glu	Asp	Gly	Ile	Leu	Ser	Cys	Thr	Phe	Glu	Pro	
				50					55					60	
Asp	Ile	Lys	Leu	Ser	Asp	Ile	Val	Ile	Gln	Trp	Leu	Lys	Glu	Gly	
				65					70					75	
Val	Leu	Gly	Leu	Val	His	Glu	Phe	Lys	Glu	Gly	Lys	Asp	Glu	Leu	
				80					85					90	
Ser	Glu	Gln	Asp	Glu	Met	Phe	Arg	Gly	Arg	Thr	Ala	Val	Phe	Ala	
				95					100					105	
Asp	Gln	Val	Ile	Val	Gly	Asn	Ala	Ser	Leu	Arg	Leu	Lys	Asn	Val	
				110					115					120	
Gln	Leu	Thr	Asp	Ala	Gly	Thr	Tyr	Lys	Cys	Tyr	Ile	Ile	Thr	Ser	
				125					130					135	
Lys	Gly	Lys	Gly	Asn	Ala	Asn	Leu	Glu	Tyr	Lys	Thr	Gly	Ala	Phe	
				140					145					150	
Ser	Met	Pro	Glu	Val	Asn	Val	Asp	Tyr	Asn	Ala	Ser	Ser	Glu	Thr	
				155					160					165	
Leu	Arg	Cys	Glu	Ala	Pro	Arg	Trp	Phe	Pro	Gln	Pro	Thr	Val	Val	
				170					175					180	
Trp	Ala	Ser	Gln	Val	Asp	Gln	Gly	Ala	Asn	Phe	Ser	Glu	Val	Ser	
				185					190					195	
Asn	Thr	Ser	Phe	Glu	Leu	Asn	Ser	Glu	Asn	Val	Thr	Met	Lys	Val	
				200					205					210	
Val	Ser	Val	Leu	Tyr	Asn	Val	Thr	Ile	Asn	Asn	Thr	Tyr	Ser	Cys	
				215					220					225	
Met	Ile	Glu	Asn	Asp	Ile	Ala	Lys	Ala	Thr	Gly	Asp	Ile	Lys	Val	
				230					235					240	
Thr	Glu	Ser	Glu	Ile	Lys	Arg	Arg	Ser	His	Leu	Gln	Leu	Leu	Asn	
				245					250					255	
Ser	Lys	Ala	Ser	Leu	Cys	Val	Ser	Ser	Phe	Phe	Ala	Ile	Ser	Trp	
				260					265					270	

Ala Leu Leu Pro Leu Ser Pro Tyr Leu Met Leu Lys
275 280

<210> 61
<211> 1617
<212> DNA
<213> Homo Sapien

<400> 61
tgacgtcaga atcaccatgg ccagctatcc ttaccggcag ggctgcccag 50
gagctgcagg acaagcacca ggagcccctc cgggtagcta ctaccctgga 100
cccccaata gtggagggca gtatggtagt gggctacccc ctggtggtgg 150
ttatgggggt cctgcccctg gagggcctta tggaccacca gctggtggag 200
ggccctatgg acacccaat cctgggatgt tcccctctgg aactccagga 250
ggaccatatg gcggtgcagc tcccgggggc ccctatggtc agccacctcc 300
aagttcctac ggtgcccagc agcctgggct ttatggacag ggtggcgccc 350
ctcccaatgt ggatcctgag gcctactcct ggttcagtc ggtggactca 400
gatcacagtg gctatatctc catgaaggag ctaaagcagg ccctggtcaa 450
ctgcaattgg tcttcattca atgatgagac ctgcctcatg atgataaaca 500
tgtttgacaa gaccaagtca ggccgcatcg atgtctacgg cttctcagcc 550
ctgtggaaat tcatccagca gtggaagaac ctcttcagc agtatgaccg 600
ggaccgctcg ggctccatta gctacacaga gctgcagcaa gctctgtccc 650
aaatgggcta caacctgagc cccagttca cccagcttct ggtctcccgc 700
tactgcccac gctctgcaa tccctgccatg cagcttgacc gcttcatcca 750
gggtgtgacc cagctgcagg tgctgacaga ggccttccgg gagaaggaca 800
cagctgtaca aggcaacatc cggctcagct tcgaggactt cgtcaccatg 850
acagcttctc ggatgctatg acccaaccat ctgtggagag tggagtgcac 900
cagggacctt tcctggcttc ttagagtgag agaagtatgt ggacatctct 950
tcttttctg tccctctaga agaacattct cccttgcttg atgcaacact 1000
gttcacaaaag aggggtggaga gtcctgcac atagccacca aatagtgagg 1050
accggggctg agggcacaca gatagggggc tgatggagga gaggatagaa 1100
gttgaatgtc ctgatggcca tgagcagttg agtggcacag cctggcacca 1150
ggagcaggtc cttgtaatgg agttagtgtc cagtcagctg agctccaccc 1200

tgatgccagt ggtgagtgtt catcggcctg ttaccgttag tacctgtgtt 1250
 ccctcaccag gccatcctgt caaacgagcc cattttctcc aaagtggaat 1300
 ctgaccaagc atgagagaga tctgtctatg ggaccagtgg cttggattct 1350
 gccacacca taaatccttg tgtgttaact tctagctgcc tggggctggc 1400
 cctgctcaga caaatctgct ccctgggcat ctttggccag gcttctgccc 1450
 cctgcagctg ggacccctca cttgectgcc atgctctgct cggcttcagt 1500
 ctccaggaga cagtggtcac ctctccctgc caatactttt ttttaattgc 1550
 attttttttc atttggggcc aaaagtccag tgaaattgta agcttcaata 1600
 aaaggatgaa actctga 1617

<210> 62
 <211> 284
 <212> PRT
 <213> Homo Sapien

<400> 62
 Met Ala Ser Tyr Pro Tyr Arg Gln Gly Cys Pro Gly Ala Ala Gly
 1 5 10 15
 Gln Ala Pro Gly Ala Pro Pro Gly Ser Tyr Tyr Pro Gly Pro Pro
 20 25 30
 Asn Ser Gly Gly Gln Tyr Gly Ser Gly Leu Pro Pro Gly Gly Gly
 35 40 45
 Tyr Gly Gly Pro Ala Pro Gly Gly Pro Tyr Gly Pro Pro Ala Gly
 50 55 60
 Gly Gly Pro Tyr Gly His Pro Asn Pro Gly Met Phe Pro Ser Gly
 65 70 75
 Thr Pro Gly Gly Pro Tyr Gly Gly Ala Ala Pro Gly Gly Pro Tyr
 80 85 90
 Gly Gln Pro Pro Pro Ser Ser Tyr Gly Ala Gln Gln Pro Gly Leu
 95 100 105
 Tyr Gly Gln Gly Gly Ala Pro Pro Asn Val Asp Pro Glu Ala Tyr
 110 115 120
 Ser Trp Phe Gln Ser Val Asp Ser Asp His Ser Gly Tyr Ile Ser
 125 130 135
 Met Lys Glu Leu Lys Gln Ala Leu Val Asn Cys Asn Trp Ser Ser
 140 145 150
 Phe Asn Asp Glu Thr Cys Leu Met Met Ile Asn Met Phe Asp Lys
 155 160 165

Thr	Lys	Ser	Gly	Arg	Ile	Asp	Val	Tyr	Gly	Phe	Ser	Ala	Leu	Trp
				170					175					180
Lys	Phe	Ile	Gln	Gln	Trp	Lys	Asn	Leu	Phe	Gln	Gln	Tyr	Asp	Arg
				185					190					195
Asp	Arg	Ser	Gly	Ser	Ile	Ser	Tyr	Thr	Glu	Leu	Gln	Gln	Ala	Leu
				200					205					210
Ser	Gln	Met	Gly	Tyr	Asn	Leu	Ser	Pro	Gln	Phe	Thr	Gln	Leu	Leu
				215					220					225
Val	Ser	Arg	Tyr	Cys	Pro	Arg	Ser	Ala	Asn	Pro	Ala	Met	Gln	Leu
				230					235					240
Asp	Arg	Phe	Ile	Gln	Val	Cys	Thr	Gln	Leu	Gln	Val	Leu	Thr	Glu
				245					250					255
Ala	Phe	Arg	Glu	Lys	Asp	Thr	Ala	Val	Gln	Gly	Asn	Ile	Arg	Leu
				260					265					270
Ser	Phe	Glu	Asp	Phe	Val	Thr	Met	Thr	Ala	Ser	Arg	Met	Leu	
				275					280					

<210> 63

<211> 1234

<212> DNA

<213> Homo Sapien

<400> 63

caggatgcag ggccgcgtgg cagggagctg cgctcctctg ggctgctcc 50

tggtctgtct tcatctccca ggctcttttg cccggagcat cgggtgtgtg 100

gaggagaaag tttcccaaaa cttcgggacc aactgcctc agctcggaca 150

accttctcc actggcccct ctaactctga acatccgcag cccgctctgg 200

accctaggtc taatgacttg gcaagggttc ctctgaagct cagcgtgcct 250

ccatcagatg gcttcccacc tgcaggaggt tctgcagtgc agaggtggcc 300

tccatcgtgg gggctgcctg ccatggattc ctggccccct gaggatcctt 350

ggcagatgat ggctgctgcg gctgaggacc gcctggggga agcgctgcct 400

gaagaactct cttacctctc cagtgtgctg gccctcgctc cgggcagtgg 450

ccctttgcct ggggagtctt ctcccgatgc cacaggcctc tcacctgagg 500

cttcactcct ccaccaggac tcggagtcca gacgactgcc ccgttctaata 550

tcactgggag ccgggggaaa aatcctttcc caacgccctc cctgggtctct 600

catccacagg gttctgcctg atcaccctg gggtagcctg aatcccagtg 650

tgtcctgggg aggtggaggc cctgggactg gttggggaac gaggcccatg 700

ccacaccctg aggggaatctg ggggtatcaat aatcaacccc caggtaccag 750
 ctgggggaaat attaatcggt atccaggagg cagctgggga aatattaatc 800
 ggtatccagg aggcagctgg gggaatatta atcggtatcc aggaggcagc 850
 tggggggaata ttcatctata cccagggtatc aataacccat ttcctcctgg 900
 agttctccgc cctcctgggt cttcttgga catcccagct ggcttcctta 950
 atcctccaag ccctaggttg cagtggggct agagcacgat agagggaaac 1000
 ccaacattgg gagttagagt cctgctcccg ccccttgctg tgtgggctca 1050
 atccaggccc tgtaacatg tttccagcac tatccccact tttcagtgcc 1100
 tcccctgctc atctccaata aaataaaaagc acttatgaaa aaaaaaaaaa 1150
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1200
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 1234

<210> 64
 <211> 325
 <212> PRT
 <213> Homo Sapien

<400> 64
 Met Gln Gly Arg Val Ala Gly Ser Cys Ala Pro Leu Gly Leu Leu
 1 5 10 15
 Leu Val Cys Leu His Leu Pro Gly Leu Phe Ala Arg Ser Ile Gly
 20 25 30
 Val Val Glu Glu Lys Val Ser Gln Asn Phe Gly Thr Asn Leu Pro
 35 40 45
 Gln Leu Gly Gln Pro Ser Ser Thr Gly Pro Ser Asn Ser Glu His
 50 55 60
 Pro Gln Pro Ala Leu Asp Pro Arg Ser Asn Asp Leu Ala Arg Val
 65 70 75
 Pro Leu Lys Leu Ser Val Pro Pro Ser Asp Gly Phe Pro Pro Ala
 80 85 90
 Gly Gly Ser Ala Val Gln Arg Trp Pro Pro Ser Trp Gly Leu Pro
 95 100 105
 Ala Met Asp Ser Trp Pro Pro Glu Asp Pro Trp Gln Met Met Ala
 110 115 120
 Ala Ala Ala Glu Asp Arg Leu Gly Glu Ala Leu Pro Glu Glu Leu
 125 130 135
 Ser Tyr Leu Ser Ser Ala Ala Ala Leu Ala Pro Gly Ser Gly Pro
 140 145 150

Leu	Pro	Gly	Glu	Ser	Ser	Pro	Asp	Ala	Thr	Gly	Leu	Ser	Pro	Glu	
				155					160					165	
Ala	Ser	Leu	Leu	His	Gln	Asp	Ser	Glu	Ser	Arg	Arg	Leu	Pro	Arg	
				170					175					180	
Ser	Asn	Ser	Leu	Gly	Ala	Gly	Gly	Lys	Ile	Leu	Ser	Gln	Arg	Pro	
				185					190					195	
Pro	Trp	Ser	Leu	Ile	His	Arg	Val	Leu	Pro	Asp	His	Pro	Trp	Gly	
				200					205					210	
Thr	Leu	Asn	Pro	Ser	Val	Ser	Trp	Gly	Gly	Gly	Gly	Pro	Gly	Thr	
				215					220					225	
Gly	Trp	Gly	Thr	Arg	Pro	Met	Pro	His	Pro	Glu	Gly	Ile	Trp	Gly	
				230					235					240	
Ile	Asn	Asn	Gln	Pro	Pro	Gly	Thr	Ser	Trp	Gly	Asn	Ile	Asn	Arg	
				245					250					255	
Tyr	Pro	Gly	Gly	Ser	Trp	Gly	Asn	Ile	Asn	Arg	Tyr	Pro	Gly	Gly	
				260					265					270	
Ser	Trp	Gly	Asn	Ile	Asn	Arg	Tyr	Pro	Gly	Gly	Ser	Trp	Gly	Asn	
				275					280					285	
Ile	His	Leu	Tyr	Pro	Gly	Ile	Asn	Asn	Pro	Phe	Pro	Pro	Gly	Val	
				290					295					300	
Leu	Arg	Pro	Pro	Gly	Ser	Ser	Trp	Asn	Ile	Pro	Ala	Gly	Phe	Pro	
				305					310					315	
Asn	Pro	Pro	Ser	Pro	Arg	Leu	Gln	Trp	Gly						
				320					325						

<210> 65

<211> 422

<212> DNA

<213> Homo Sapien

<400> 65

```

aaggagagggc caccgggact tcagtgtctc ctccatccca ggagcgcagt 50
ggccactatg gggctctgggc tgccccttgt cctcctcttg accctccttg 100
gcagctcaca tggaacaggg ccgggtatga ctttgcaact gaagctgaag 150
gagtcttttc tgacaaattc ctctatgag tccagcttcc tggaattgct 200
tgaaaagctc tgcctcctcc tccatctccc ttcagggacc agcgtcaccc 250
tccaccatgc aagatctcaa caccatgttg tctgcaacac atgacagcca 300
ttgaagcctg tgtccttctt ggcccgggct tttggggccgg ggatgcagga 350
ggcaggcccc gaccctgtct ttcagcaggc cccaccctc ctgagtggca 400

```

ataaataaaa ttcggtatgc tg 422

<210> 66
<211> 78
<212> PRT
<213> Homo Sapien

<400> 66
Met Gly Ser Gly Leu Pro Leu Val Leu Leu Leu Thr Leu Leu Gly
1 5 10 15
Ser Ser His Gly Thr Gly Pro Gly Met Thr Leu Gln Leu Lys Leu
20 25 30
Lys Glu Ser Phe Leu Thr Asn Ser Ser Tyr Glu Ser Ser Phe Leu
35 40 45
Glu Leu Leu Glu Lys Leu Cys Leu Leu Leu His Leu Pro Ser Gly
50 55 60
Thr Ser Val Thr Leu His His Ala Arg Ser Gln His His Val Val
65 70 75
Cys Asn Thr

<210> 67
<211> 744
<212> DNA
<213> Homo Sapien

<400> 67
acggaccgag ggttcgaggg agggacacgg accaggaacc tgagctaggt 50
caaagacgcc cgggccaggt gccccgtcgc aggtgcccct ggccggagat 100
gcggtaggag gggcgagcgc gagaagcccc ttcctcggcg ctgccaaccc 150
gccaccacgc ccatggcgaa ccccgggctg gggctgcttc tggcgctggg 200
cctgccgttc ctgctggccc gctggggccg agcctggggg caaatacaga 250
ccacttctgc aaatgagaat agcactgttt tgccttcac caccagctcc 300
agctccgatg gcaacctgcg tccggaagcc atcactgcta tcatcgtggg 350
cttctccctc ttggctgcct tgctcctggc tgtggggctg gcactgttgg 400
tgcggaagct tcgggagaag cggcagacgg agggcaccta ccggcccagt 450
agcgaggagc agttctccca tgcagccgag gcccggggccc ctcaggactc 500
caaggagacg gtgcagggct gcctgcccac ctaggtcccc tctcctgcat 550
ctgtctccct tcattgctgt gtgaccttgg ggaaaggcag tgccctctct 600
gggcagtcag atccaccacg tgcttaatat cagggaagaa ggtacttcaa 650

agactctgcc cctgaggtca agagaggatg gggctattca cttttatata 700

tttatataaa attagtagtg agatgtaaaa aaaaaaaaaa aaaa 744

<210> 68

<211> 123

<212> PRT

<213> Homo Sapien

<400> 68

Met	Ala	Asn	Pro	Gly	Leu	Gly	Leu	Leu	Leu	Ala	Leu	Gly	Leu	Pro
1				5					10				15	

Phe	Leu	Leu	Ala	Arg	Trp	Gly	Arg	Ala	Trp	Gly	Gln	Ile	Gln	Thr
				20					25					30

Thr	Ser	Ala	Asn	Glu	Asn	Ser	Thr	Val	Leu	Pro	Ser	Ser	Thr	Ser
				35					40					45

Ser	Ser	Ser	Asp	Gly	Asn	Leu	Arg	Pro	Glu	Ala	Ile	Thr	Ala	Ile
				50					55					60

Ile	Val	Val	Phe	Ser	Leu	Leu	Ala	Ala	Leu	Leu	Leu	Ala	Val	Gly
				65					70					75

Leu	Ala	Leu	Leu	Val	Arg	Lys	Leu	Arg	Glu	Lys	Arg	Gln	Thr	Glu
				80					85					90

Gly	Thr	Tyr	Arg	Pro	Ser	Ser	Glu	Glu	Gln	Phe	Ser	His	Ala	Ala
				95					100					105

Glu	Ala	Arg	Ala	Pro	Gln	Asp	Ser	Lys	Glu	Thr	Val	Gln	Gly	Cys
				110					115					120

Leu Pro Ile

<210> 69

<211> 3265

<212> DNA

<213> Homo Sapien

<400> 69

gccaggaata actagagagg aacaatgggg ttattcagag gttttgtttt 50
cctcttagtt ctgtgcctgc tgcaccagtc aaatacttcc ttcattaagc 100

tgaataataa tggctttgaa gatattgtca ttggtataga tcctagtgtg 150

ccagaagatg aaaaaataat tgaacaaata gaggatatgg tgactacagc 200

ttctacgtac ctgtttgaag ccacagaaaa aagatttttt ttcaaaaatg 250

tatctatatt aattcctgag aattggaagg aaaatcctca gtacaaaagg 300

ccaaaacatg aaaaccataa acatgctgat gttatagttg caccacctac 350

actcccaggt agagatgaac catacaccaa gcagttcaca gaatgtggag 400
 agaaaggcga atacattcac ttcaccctg accttctact tggaaaaaaa 450
 caaaatgaat atggaccacc aggcaaactg tttgtccatg agtgggctca 500
 cctccggtgg ggagtgtttg atgagtacaa tgaagatcag cctttctacc 550
 gtgctaagtc aaaaaaaatc gaagcaacaa ggtgttccgc aggtatctct 600
 ggtagaaata gagtttataa gtgtcaagga ggcagctgtc ttagtagagc 650
 atgcagaatt gattctacaa caaaactgta tggaaaagat tgtcaattct 700
 ttcttgataa agtacaacaa gaaaaagcat ccataatgtt tatgcaaagt 750
 attgattctg ttgttgaatt ttgtaacgaa aaaaccata atcaagaagc 800
 tccaagccta caaaacataa agtgcaattt tagaagtaca tgggaggtga 850
 ttagcaattc tgaggatttt aaaaacacca taccatggt gacaccacct 900
 cctccacctg tcttctcatt gctgaagatc agtcaaagaa ttgtgtgctt 950
 agttcttgat aagtctggaa gcatgggggg taaggaccgc ctaaatcgaa 1000
 tgaatcaagc agcaaaacat ttctgctgc agactgttga aaatggatcc 1050
 tgggtgggga tggttcactt tgatagtact gccactattg taaataagct 1100
 aatccaaata aaaagcagtg atgaaagaaa cacactcatg gcaggattac 1150
 ctacatatcc tctgggagga acttccatct gctctggaat taaatatgca 1200
 tttcaggtga ttggagagct acattcccaa ctcgatggat ccgaagtact 1250
 gctgctgact gatggggagg ataacactgc aagttcttgt attgatgaag 1300
 tgaaacaaag tgggggcatt gttcatttta ttgctttggg aagagctgct 1350
 gatgaagcag taatagagat gagcaagata acaggaggaa gtcattttta 1400
 tgtttcagat gaagctcaga acaatggcct cattgatgct tttggggctc 1450
 ttacatcagg aaatactgat ctctcccaga agtcccttca gctcgaaagt 1500
 aagggattaa cactgaatag taatgcctgg atgaacgaca ctgtcataat 1550
 tgatagtaca gtgggaaagg acacgttctt tctcatcaca tggaacagtc 1600
 tgccctccag tatttctctc tgggatccca gtggaacaat aatggaaaat 1650
 ttcacagtgg atgcaacttc caaaatggcc tatctcagta ttccaggaac 1700
 tgcaaagggt ggcacttggg catacaatct tcaagccaaa gcgaaccag 1750
 aaacattaac tattacagta acttctcgag cagcaaattc ttctgtgcct 1800

ccaatcacag tgaatgctaa aatgaataag gacgtaaaca gtttccccag 1850
 cccaatgatt gtttacgcag aaattctaca aggatatgta cctgttcttg 1900
 gagccaatgt gactgctttc attgaatcac agaatggaca tacagaagtt 1950
 ttggaacttt tggataatgg tgcaggcgct gattctttca agaatgatgg 2000
 agtctactcc aggtatttta cagcatatac agaaaatggc agatatagct 2050
 taaaagttcg ggctcatgga ggagcaaaca ctgccaggct aaaattacgg 2100
 cctccactga atagagccgc gtacatacca ggctgggtag tgaacgggga 2150
 aattgaagca aacccgcca gacctgaaat tgatgaggat actcagacca 2200
 ccttgaggga tttcagccga acagcatccg gaggtgcatt tgtggtatca 2250
 caagtcccaa gccttccctt gcctgaccaa taccaccaa gtcaaatcac 2300
 agaccttgat gccacagttc atgaggataa gattattctt acatggacag 2350
 caccaggaga taattttgat gttggaaaag ttcaacgtta tatcataaga 2400
 ataagtgcaa gtattcttga tctaagagac agttttgatg atgctcttca 2450
 agtaaatact actgatctgt caccaaagga ggccaactcc aaggaaagct 2500
 ttgcatttaa accagaaaat atctcagaag aaaatgcaac ccacatattt 2550
 attgccatta aaagtataga taaaagcaat ttgacatcaa aagtatccaa 2600
 cattgcacaa gtaactttgt ttatccctca agcaaactct gatgacattg 2650
 atcctacacc tactcctact cctactccta ctcttgataa aagtcataat 2700
 tctggagtta atatttctac gctggtattg tctgtgattg ggtctgttgt 2750
 aattgttaac tttattttta gtaccacat ttgaacctta acgaagaaaa 2800
 aaatcttcaa gtagacctag aagagagttt taaaaaaca aacaatgtaa 2850
 gtaaaggata tttctgaatc ttaaaattca tcccatgtgt gatcataaac 2900
 tcataaaaaat aatttttaaga tgtcggaaaa ggatactttg attaaataaa 2950
 aacactcatg gatatgtaaa aactgtcaag attaaaattt aatagtttca 3000
 tttatttggt attttatttg taagaaatag tgatgaacaa agatcctttt 3050
 tcatactgat acctgggtgt atattatttg atgcaacagt tttctgaaat 3100
 gatatttcaa attgcatcaa gaaattaaaa tcattctatct gagtagtcaa 3150
 aatacaagta aaggagagca aataaacaac atttggaata aaaaaaaaaa 3200

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 3250

aaaaaaaaaa aaaaaa 3265

<210> 70

<211> 919

<212> PRT

<213> Homo Sapien

<400> 70

Met	Gly	Leu	Phe	Arg	Gly	Phe	Val	Phe	Leu	Leu	Val	Leu	Cys	Leu	
1				5					10					15	
Leu	His	Gln	Ser	Asn	Thr	Ser	Phe	Ile	Lys	Leu	Asn	Asn	Asn	Gly	
				20					25					30	
Phe	Glu	Asp	Ile	Val	Ile	Val	Ile	Asp	Pro	Ser	Val	Pro	Glu	Asp	
				35					40					45	
Glu	Lys	Ile	Ile	Glu	Gln	Ile	Glu	Asp	Met	Val	Thr	Thr	Ala	Ser	
				50					55					60	
Thr	Tyr	Leu	Phe	Glu	Ala	Thr	Glu	Lys	Arg	Phe	Phe	Phe	Lys	Asn	
				65					70					75	
Val	Ser	Ile	Leu	Ile	Pro	Glu	Asn	Trp	Lys	Glu	Asn	Pro	Gln	Tyr	
				80					85					90	
Lys	Arg	Pro	Lys	His	Glu	Asn	His	Lys	His	Ala	Asp	Val	Ile	Val	
				95					100					105	
Ala	Pro	Pro	Thr	Leu	Pro	Gly	Arg	Asp	Glu	Pro	Tyr	Thr	Lys	Gln	
				110					115					120	
Phe	Thr	Glu	Cys	Gly	Glu	Lys	Gly	Glu	Tyr	Ile	His	Phe	Thr	Pro	
				125					130					135	
Asp	Leu	Leu	Leu	Gly	Lys	Lys	Gln	Asn	Glu	Tyr	Gly	Pro	Pro	Gly	
				140					145					150	
Lys	Leu	Phe	Val	His	Glu	Trp	Ala	His	Leu	Arg	Trp	Gly	Val	Phe	
				155					160					165	
Asp	Glu	Tyr	Asn	Glu	Asp	Gln	Pro	Phe	Tyr	Arg	Ala	Lys	Ser	Lys	
				170					175					180	
Lys	Ile	Glu	Ala	Thr	Arg	Cys	Ser	Ala	Gly	Ile	Ser	Gly	Arg	Asn	
				185					190					195	
Arg	Val	Tyr	Lys	Cys	Gln	Gly	Gly	Ser	Cys	Leu	Ser	Arg	Ala	Cys	
				200					205					210	
Arg	Ile	Asp	Ser	Thr	Thr	Lys	Leu	Tyr	Gly	Lys	Asp	Cys	Gln	Phe	
				215					220					225	
Phe	Pro	Asp	Lys	Val	Gln	Thr	Glu	Lys	Ala	Ser	Ile	Met	Phe	Met	
				230					235					240	

Gln Ser Ile Asp Ser Val Val Glu Phe Cys Asn Glu Lys Thr His	245	250	255
Asn Gln Glu Ala Pro Ser Leu Gln Asn Ile Lys Cys Asn Phe Arg	260	265	270
Ser Thr Trp Glu Val Ile Ser Asn Ser Glu Asp Phe Lys Asn Thr	275	280	285
Ile Pro Met Val Thr Pro Pro Pro Pro Pro Val Phe Ser Leu Leu	290	295	300
Lys Ile Ser Gln Arg Ile Val Cys Leu Val Leu Asp Lys Ser Gly	305	310	315
Ser Met Gly Gly Lys Asp Arg Leu Asn Arg Met Asn Gln Ala Ala	320	325	330
Lys His Phe Leu Leu Gln Thr Val Glu Asn Gly Ser Trp Val Gly	335	340	345
Met Val His Phe Asp Ser Thr Ala Thr Ile Val Asn Lys Leu Ile	350	355	360
Gln Ile Lys Ser Ser Asp Glu Arg Asn Thr Leu Met Ala Gly Leu	365	370	375
Pro Thr Tyr Pro Leu Gly Gly Thr Ser Ile Cys Ser Gly Ile Lys	380	385	390
Tyr Ala Phe Gln Val Ile Gly Glu Leu His Ser Gln Leu Asp Gly	395	400	405
Ser Glu Val Leu Leu Leu Thr Asp Gly Glu Asp Asn Thr Ala Ser	410	415	420
Ser Cys Ile Asp Glu Val Lys Gln Ser Gly Ala Ile Val His Phe	425	430	435
Ile Ala Leu Gly Arg Ala Ala Asp Glu Ala Val Ile Glu Met Ser	440	445	450
Lys Ile Thr Gly Gly Ser His Phe Tyr Val Ser Asp Glu Ala Gln	455	460	465
Asn Asn Gly Leu Ile Asp Ala Phe Gly Ala Leu Thr Ser Gly Asn	470	475	480
Thr Asp Leu Ser Gln Lys Ser Leu Gln Leu Glu Ser Lys Gly Leu	485	490	495
Thr Leu Asn Ser Asn Ala Trp Met Asn Asp Thr Val Ile Ile Asp	500	505	510
Ser Thr Val Gly Lys Asp Thr Phe Phe Leu Ile Thr Trp Asn Ser	515	520	525

Leu	Pro	Pro	Ser	Ile	Ser	Leu	Trp	Asp	Pro	Ser	Gly	Thr	Ile	Met	530	535	540
Glu	Asn	Phe	Thr	Val	Asp	Ala	Thr	Ser	Lys	Met	Ala	Tyr	Leu	Ser	545	550	555
Ile	Pro	Gly	Thr	Ala	Lys	Val	Gly	Thr	Trp	Ala	Tyr	Asn	Leu	Gln	560	565	570
Ala	Lys	Ala	Asn	Pro	Glu	Thr	Leu	Thr	Ile	Thr	Val	Thr	Ser	Arg	575	580	585
Ala	Ala	Asn	Ser	Ser	Val	Pro	Pro	Ile	Thr	Val	Asn	Ala	Lys	Met	590	595	600
Asn	Lys	Asp	Val	Asn	Ser	Phe	Pro	Ser	Pro	Met	Ile	Val	Tyr	Ala	605	610	615
Glu	Ile	Leu	Gln	Gly	Tyr	Val	Pro	Val	Leu	Gly	Ala	Asn	Val	Thr	620	625	630
Ala	Phe	Ile	Glu	Ser	Gln	Asn	Gly	His	Thr	Glu	Val	Leu	Glu	Leu	635	640	645
Leu	Asp	Asn	Gly	Ala	Gly	Ala	Asp	Ser	Phe	Lys	Asn	Asp	Gly	Val	650	655	660
Tyr	Ser	Arg	Tyr	Phe	Thr	Ala	Tyr	Thr	Glu	Asn	Gly	Arg	Tyr	Ser	665	670	675
Leu	Lys	Val	Arg	Ala	His	Gly	Gly	Ala	Asn	Thr	Ala	Arg	Leu	Lys	680	685	690
Leu	Arg	Pro	Pro	Leu	Asn	Arg	Ala	Ala	Tyr	Ile	Pro	Gly	Trp	Val	695	700	705
Val	Asn	Gly	Glu	Ile	Glu	Ala	Asn	Pro	Pro	Arg	Pro	Glu	Ile	Asp	710	715	720
Glu	Asp	Thr	Gln	Thr	Thr	Leu	Glu	Asp	Phe	Ser	Arg	Thr	Ala	Ser	725	730	735
Gly	Gly	Ala	Phe	Val	Val	Ser	Gln	Val	Pro	Ser	Leu	Pro	Leu	Pro	740	745	750
Asp	Gln	Tyr	Pro	Pro	Ser	Gln	Ile	Thr	Asp	Leu	Asp	Ala	Thr	Val	755	760	765
His	Glu	Asp	Lys	Ile	Ile	Leu	Thr	Trp	Thr	Ala	Pro	Gly	Asp	Asn	770	775	780
Phe	Asp	Val	Gly	Lys	Val	Gln	Arg	Tyr	Ile	Ile	Arg	Ile	Ser	Ala	785	790	795
Ser	Ile	Leu	Asp	Leu	Arg	Asp	Ser	Phe	Asp	Asp	Ala	Leu	Gln	Val	800	805	810

Asn	Thr	Thr	Asp	Leu	Ser	Pro	Lys	Glu	Ala	Asn	Ser	Lys	Glu	Ser	815	820	825
Phe	Ala	Phe	Lys	Pro	Glu	Asn	Ile	Ser	Glu	Glu	Asn	Ala	Thr	His	830	835	840
Ile	Phe	Ile	Ala	Ile	Lys	Ser	Ile	Asp	Lys	Ser	Asn	Leu	Thr	Ser	845	850	855
Lys	Val	Ser	Asn	Ile	Ala	Gln	Val	Thr	Leu	Phe	Ile	Pro	Gln	Ala	860	865	870
Asn	Pro	Asp	Asp	Ile	Asp	Pro	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Pro	875	880	885
Thr	Pro	Asp	Lys	Ser	His	Asn	Ser	Gly	Val	Asn	Ile	Ser	Thr	Leu	890	895	900
Val	Leu	Ser	Val	Ile	Gly	Ser	Val	Val	Ile	Val	Asn	Phe	Ile	Leu	905	910	915

Ser Thr Thr Ile

<210> 71
 <211> 3877
 <212> DNA
 <213> Homo Sapien

<400> 71
 ctcccttaggt ggaaaccctg ggagtagagt actgacagca aagaccggga 50
 aagaccatac gtccccgggc aggggtgaca acaggtgtca tctttttgat 100
 ctcggtgtgtg gctgccttcc tatttcaagg aaagacgcca aggtaatttt 150
 gaccagagg agcaatgatg tagccacctc ctaaccttcc cttcttgaac 200
 cccagttat gccaggattt actagagagt gtcaactcaa ccagcaagcg 250
 gtccttcgg ctttaacttgt ggttgaggga gagaaccttt gtggggctgc 300
 gttctcttag cagtgtcag aagtgacttg cctgagggtg gaccagaaga 350
 aaggaaaggt cccctcttgc tgttggtgc acatcaggaa ggctgtgatg 400
 ggaatgaagg tgaaaacttg gagatttcac ttcagtcatt gcttctgcct 450
 gcaagatcat cctttaaaag tagagaagct gctctgtgtg gtggttaact 500
 ccaagaggca gaactcgttc tagaaggaaa tggatgcaag cagctccggg 550
 ggccccaac gcatgcttcc tgtggtctag cccagggaag cccttccgtg 600
 ggggccccgg ctttgaggga tgccaccggt tctggacgca tggctgattc 650
 ctgaatgatg atggttcgcc gggggctgct tgcgtggatt tcccgggtgg 700

tggtttttgct ggtgctcctc tgctgtgcta tctctgtcct gtacatgttg 750
 gcctgcaccc caaaaggtga cgaggagcag ctggcactgc ccagggccaa 800
 cagccccacg gggaaggagg ggtaccaggc cgtccttcag gagtgggagg 850
 agcagcacccg caactacgtg agcagcctga agcggcagat cgcacagctc 900
 aaggaggagc tgcaggagag gagtgagcag ctcaggaatg ggcagtacca 950
 agccagcgat gctgctggcc tgggtctgga caggagcccc ccagagaaaa 1000
 cccaggccga cctcctggcc ttcctgcact cgcaggtgga caaggcagag 1050
 gtgaatgctg gcgtcaagct ggccacagag tatgcagcag tgcctttcga 1100
 tagctttact ctacagaagg tgtaccagct ggagactggc cttaccgcgc 1150
 accccgagga gaagcctgtg aggaaggaca agcgggatga gttggtggaa 1200
 gccattgaat cagccttga gaccctgaac aatcctgcag agaacagccc 1250
 caatcacctg ccttacacgg cctctgattt catagaaggg atctaccgaa 1300
 cagaaaggga caaagggaca ttgtatgagc tcaccttcaa aggggaccac 1350
 aaacacgaat tcaaacggct catcttattt cgaccattca gccccatcat 1400
 gaaagtgaaa aatgaaaagc tcaacatggc caacacgctt atcaatgtta 1450
 tcgtgcctct agcaaaaagg gtggacaagt tccggcagtt catgcagaat 1500
 ttcaggggaga tgtgcattga gcaggatggg agagtccatc tctgtttgt 1550
 ttactttggg aaagaagaaa taaatgaagt caaaggaata cttgaaaaca 1600
 cttccaaagc tgccaacttc aggaacttta cttcatcca gctgaatgga 1650
 gaattttctc ggggaaaggg acttgatgtt ggagcccgtc tctggaaggg 1700
 aagcaacgtc cttctctttt tctgtgatgt ggacatctac ttcacatctg 1750
 aattcctcaa tacgtgtagg ctgaatacac agccaggga gaaggtattt 1800
 tatccagttc ttttcagtca gtacaatcct ggcataatat acggccacca 1850
 tgatgcagtc cctcccttgg aacagcagct ggtcataaag aaggaaactg 1900
 gatthttggag agactttgga tttgggatga cgtgtcagta tcggtcagac 1950
 ttcacatcaata taggtgggtt tgatctggac atcaaaggct ggggcggaga 2000
 ggatgtgcac ctttatcgca agtatctcca cagcaacctc atagtggtag 2050
 ggacgcctgt gcgaggactc ttccacctct ggcagagaaa gcgctgcatg 2100
 gacgagctga cccccgagca gtacaagatg tgcagtcagt ccaaggccat 2150

gaacgaggca tcccacggcc agctgggcat gctggtgttc aggcacgaga 2200
 tagaggctca ccttcgcaaa cagaaacaga agacaagtag caaaaaaaca 2250
 tgaactccca gagaaggatt gtgggagaca ctttttcttt ccttttgcaa 2300
 ttactgaaag tggctgcaac agagaaaaga cttccataaa ggacgacaaa 2350
 agaattggac tgatgggtca gagatgagaa agcctccgat ttctctctgt 2400
 tgggcttttt acaacagaaa tcaaaatctc cgctttgcct gcaaaagtaa 2450
 cccagttgca ccctgtgaag tgtctgacaa aggcagaatg cttgtgagat 2500
 tataagccta atggtgtgga ggttttgatg gtgtttacaa tacactgaga 2550
 cctgttgttt tgtgtgctca ttgaaatatt catgatttaa gagcagtttt 2600
 gtaaaaaatt cattagcatg aaaggcaagc atatttctcc tcatatgaat 2650
 gagcctatca gcagggtctt agtttctagg aatgctaaaa tatcagaagg 2700
 caggagagga gataggctta ttatgatact agtgagtaca ttaagtaaaa 2750
 taaaatggac cagaaaagaa aagaaacat aaatatcgtg tcatattttc 2800
 cccaagatta accaaaaata atctgcttat ctttttggtt gtccttttaa 2850
 ctgtctccgt ttttttcttt tatttaaaaa tgcacttttt ttcccttggtg 2900
 agttatagtc tgcttattta attaccactt tgcaagcctt acaagagagc 2950
 acaagttggc ctacattttt atatttttta agaagatact ttgagatgca 3000
 ttatgagaac tttcagttca aagcatcaaa ttgatgccat atccaaggac 3050
 atgccaaatg ctgattctgt caggcactga atgtcaggca ttgagacata 3100
 gggaaggaat ggtttgact aatacagacg tacagatact ttctctgaag 3150
 agtattttcg aagaggagca actgaacact ggaggaaaag aaaatgacac 3200
 tttctgcttt acagaaaagg aaactcattc agactggtga tatcgtgatg 3250
 tacctaaaag tcagaaacca ctttttctcc tcagaagtag ggaccgcttt 3300
 cttacctgtt taaataaacc aaagtatacc gtgtgaacca aacaatctct 3350
 tttcaaaaca gggtgctcct cctggcttct ggcttcata agaagaaatg 3400
 gagaaaaata tatatatata tatatatatt gtgaaagatc aatccatctg 3450
 ccagaatcta gtgggatgga agtttttgct acatgttatc caccacaggc 3500
 caggtggaag taactgaatt attttttaaa ttaagcagtt ctactcaatc 3550

accaagatgc ttctgaaaat tgcattttat taccatttca aactattttt 3600
 taaaaataaa tacagttaac atagagtggg ttcttcattc atgtgaaaat 3650
 tattagccag caccagatgc atgagctaata tatctctttg agtccttgct 3700
 tctgtttgct cacagtaaac tcattgttta aaagcttcaa gaacattcaa 3750
 gctgttggtg tgtaaaaaa tgcattgtat tgatttgtac tggtagttta 3800
 tgaaatttaa ttaaacaca ggccatgaat ggaaggtggg attgcacagc 3850
 taataaaata tgatttgtgg atatgaa 3877

<210> 72
 <211> 532
 <212> PRT
 <213> Homo Sapien

<400> 72
 Met Met Met Val Arg Arg Gly Leu Leu Ala Trp Ile Ser Arg Val
 1 5 10 15
 Val Val Leu Leu Val Leu Leu Cys Cys Ala Ile Ser Val Leu Tyr
 20 25 30
 Met Leu Ala Cys Thr Pro Lys Gly Asp Glu Glu Gln Leu Ala Leu
 35 40 45
 Pro Arg Ala Asn Ser Pro Thr Gly Lys Glu Gly Tyr Gln Ala Val
 50 55 60
 Leu Gln Glu Trp Glu Glu Gln His Arg Asn Tyr Val Ser Ser Leu
 65 70 75
 Lys Arg Gln Ile Ala Gln Leu Lys Glu Glu Leu Gln Glu Arg Ser
 80 85 90
 Glu Gln Leu Arg Asn Gly Gln Tyr Gln Ala Ser Asp Ala Ala Gly
 95 100 105
 Leu Gly Leu Asp Arg Ser Pro Pro Glu Lys Thr Gln Ala Asp Leu
 110 115 120
 Leu Ala Phe Leu His Ser Gln Val Asp Lys Ala Glu Val Asn Ala
 125 130 135
 Gly Val Lys Leu Ala Thr Glu Tyr Ala Ala Val Pro Phe Asp Ser
 140 145 150
 Phe Thr Leu Gln Lys Val Tyr Gln Leu Glu Thr Gly Leu Thr Arg
 155 160 165
 His Pro Glu Glu Lys Pro Val Arg Lys Asp Lys Arg Asp Glu Leu
 170 175 180
 Val Glu Ala Ile Glu Ser Ala Leu Glu Thr Leu Asn Asn Pro Ala

				185						190					195
Glu	Asn	Ser	Pro	Asn	His	Arg	Pro	Tyr	Thr	Ala	Ser	Asp	Phe	Ile	
				200					205					210	
Glu	Gly	Ile	Tyr	Arg	Thr	Glu	Arg	Asp	Lys	Gly	Thr	Leu	Tyr	Glu	
				215					220					225	
Leu	Thr	Phe	Lys	Gly	Asp	His	Lys	His	Glu	Phe	Lys	Arg	Leu	Ile	
				230					235					240	
Leu	Phe	Arg	Pro	Phe	Ser	Pro	Ile	Met	Lys	Val	Lys	Asn	Glu	Lys	
				245					250					255	
Leu	Asn	Met	Ala	Asn	Thr	Leu	Ile	Asn	Val	Ile	Val	Pro	Leu	Ala	
				260					265					270	
Lys	Arg	Val	Asp	Lys	Phe	Arg	Gln	Phe	Met	Gln	Asn	Phe	Arg	Glu	
				275					280					285	
Met	Cys	Ile	Glu	Gln	Asp	Gly	Arg	Val	His	Leu	Thr	Val	Val	Tyr	
				290					295					300	
Phe	Gly	Lys	Glu	Glu	Ile	Asn	Glu	Val	Lys	Gly	Ile	Leu	Glu	Asn	
				305					310					315	
Thr	Ser	Lys	Ala	Ala	Asn	Phe	Arg	Asn	Phe	Thr	Phe	Ile	Gln	Leu	
				320					325					330	
Asn	Gly	Glu	Phe	Ser	Arg	Gly	Lys	Gly	Leu	Asp	Val	Gly	Ala	Arg	
				335					340					345	
Phe	Trp	Lys	Gly	Ser	Asn	Val	Leu	Leu	Phe	Phe	Cys	Asp	Val	Asp	
				350					355					360	
Ile	Tyr	Phe	Thr	Ser	Glu	Phe	Leu	Asn	Thr	Cys	Arg	Leu	Asn	Thr	
				365					370					375	
Gln	Pro	Gly	Lys	Lys	Val	Phe	Tyr	Pro	Val	Leu	Phe	Ser	Gln	Tyr	
				380					385					390	
Asn	Pro	Gly	Ile	Ile	Tyr	Gly	His	His	Asp	Ala	Val	Pro	Pro	Leu	
				395					400					405	
Glu	Gln	Gln	Leu	Val	Ile	Lys	Lys	Glu	Thr	Gly	Phe	Trp	Arg	Asp	
				410					415					420	
Phe	Gly	Phe	Gly	Met	Thr	Cys	Gln	Tyr	Arg	Ser	Asp	Phe	Ile	Asn	
				425					430					435	
Ile	Gly	Gly	Phe	Asp	Leu	Asp	Ile	Lys	Gly	Trp	Gly	Gly	Glu	Asp	
				440					445					450	
Val	His	Leu	Tyr	Arg	Lys	Tyr	Leu	His	Ser	Asn	Leu	Ile	Val	Val	
				455					460					465	
Arg	Thr	Pro	Val	Arg	Gly	Leu	Phe	His	Leu	Trp	His	Glu	Lys	Arg	

	470		475		480
Cys Met Asp Glu Leu Thr Pro Glu Gln Tyr Lys Met Cys Met Gln					
	485		490		495
Ser Lys Ala Met Asn Glu Ala Ser His Gly Gln Leu Gly Met Leu					
	500		505		510
Val Phe Arg His Glu Ile Glu Ala His Leu Arg Lys Gln Lys Gln					
	515		520		525
Lys Thr Ser Ser Lys Lys Thr					
	530				

<210> 73
 <211> 1701
 <212> DNA
 <213> Homo Sapien
 <220>
 <221> unsure
 <222> 1528
 <223> unknown base

<400> 73
 gagactgcag agggagataa agagagaggg caaagaggca gcaagagatt 50
 tgtcctgggg atccagaaac ccatgatacc ctactgaaca ccgaatcccc 100
 tggaagccca cagagacaga gacagcaaga gaagcagaga taaatacact 150
 cagccagga gctcgtcgc tctctctctc tctctctcac tctccctcc 200
 ctctctctct gcctgtccta gtctctagt cctcaaattc ccagtccct 250
 gcaccccttc ctgggacact atgttgttct ccgccctcct gctggagggtg 300
 atttgatcc tggctgcaga tgggggtcaa cactggacgt atgagggccc 350
 acatggtcag gaccattggc cagcctctta ccctgagtgt ggaaacaatg 400
 cccagtcgcc catcgatatt cagacagaca gtgtgacatt tgaccctgat 450
 ttgcctgctc tgcagcccca cggatatgac cagcctggca ccgagccttt 500
 ggacctgcac aacaatggcc acacagtgc actctctctg ccctctaccc 550
 tgtatctggg tggacttccc cgaaaatatg tagctgccca gctccacctg 600
 cactggggtc agaaaggatc cccagggggg tcagaacacc agatcaacag 650
 tgaagccaca tttgcagagc tccacattgt acattatgac tctgattcct 700
 atgacagctt gaggtaggct gctgagaggc ctcagggcct ggctgtcctg 750
 ggcacctaataa ttgaggtggg tgagactaag aatatagctt atgaacacat 800
 tctgagtcac ttgcatgaag tcaggcataa agatcagaag acctcagtgc 850

ctcccttcaa cctaagagag ctgctcccca aacagctggg gcagtacttc 900
 cgctacaatg gctcgctcac aactccccct tgctaccaga gtgtgctctg 950
 gacagttttt tatagaaggt cccagatttc aatggaacag ctggaaaagc 1000
 ttcaggggac attgttctcc acagaagagg agccctctaa gcttctggta 1050
 cagaactacc gagcccttca gcctctcaat cagcgcatgg tctttgcttc 1100
 tttcatccaa gcaggatcct cgtataccac aggtgaaatg ctgagtctag 1150
 gtgtaggaat cttggttggc tgtctctgcc ttctcctggc tgtttatttc 1200
 attgctagaa agattcggaa gaagaggctg gaaaaccgaa agagtgtggt 1250
 cttcacctca gcacaagcca cgactgaggc ataaattcct tctcagatac 1300
 catggatgtg gatgacttcc cttcatgcct atcaggaagc ctctaaaatg 1350
 ggggtgtagga tctggccaga aacactgtag gagtagtaag cagatgtcct 1400
 ccttcccctg gacatctctt agagaggaat ggaccaggc tgtcattcca 1450
 ggaagaactg cagagccttc agcctctcca aacatgtagg aggaaatgag 1500
 gaaatcgctg tgttgttaat gcagaganca aactctgttt agttgcaggg 1550
 gaagtttggg atatacccca aagtcctcta cccctcact tttatggccc 1600
 tttccctaga tatactgcgg gatctctcct taggataaag agttgctggt 1650
 gaagttgtat atttttgatc aatatatttg gaaattaaag tttctgactt 1700

t 1701

<210> 74

<211> 337

<212> PRT

<213> Homo Sapien

<400> 74

Met	Leu	Phe	Ser	Ala	Leu	Leu	Leu	Glu	Val	Ile	Trp	Ile	Leu	Ala
1				5				10					15	
Ala	Asp	Gly	Gly	Gln	His	Trp	Thr	Tyr	Glu	Gly	Pro	His	Gly	Gln
				20				25					30	
Asp	His	Trp	Pro	Ala	Ser	Tyr	Pro	Glu	Cys	Gly	Asn	Asn	Ala	Gln
				35				40					45	
Ser	Pro	Ile	Asp	Ile	Gln	Thr	Asp	Ser	Val	Thr	Phe	Asp	Pro	Asp
				50				55					60	
Leu	Pro	Ala	Leu	Gln	Pro	His	Gly	Tyr	Asp	Gln	Pro	Gly	Thr	Glu
				65				70					75	

Pro	Leu	Asp	Leu	His	Asn	Asn	Gly	His	Thr	Val	Gln	Leu	Ser	Leu		80	85	90
Pro	Ser	Thr	Leu	Tyr	Leu	Gly	Gly	Leu	Pro	Arg	Lys	Tyr	Val	Ala		95	100	105
Ala	Gln	Leu	His	Leu	His	Trp	Gly	Gln	Lys	Gly	Ser	Pro	Gly	Gly		110	115	120
Ser	Glu	His	Gln	Ile	Asn	Ser	Glu	Ala	Thr	Phe	Ala	Glu	Leu	His		125	130	135
Ile	Val	His	Tyr	Asp	Ser	Asp	Ser	Tyr	Asp	Ser	Leu	Ser	Glu	Ala		140	145	150
Ala	Glu	Arg	Pro	Gln	Gly	Leu	Ala	Val	Leu	Gly	Ile	Leu	Ile	Glu		155	160	165
Val	Gly	Glu	Thr	Lys	Asn	Ile	Ala	Tyr	Glu	His	Ile	Leu	Ser	His		170	175	180
Leu	His	Glu	Val	Arg	His	Lys	Asp	Gln	Lys	Thr	Ser	Val	Pro	Pro		185	190	195
Phe	Asn	Leu	Arg	Glu	Leu	Leu	Pro	Lys	Gln	Leu	Gly	Gln	Tyr	Phe		200	205	210
Arg	Tyr	Asn	Gly	Ser	Leu	Thr	Thr	Pro	Pro	Cys	Tyr	Gln	Ser	Val		215	220	225
Leu	Trp	Thr	Val	Phe	Tyr	Arg	Arg	Ser	Gln	Ile	Ser	Met	Glu	Gln		230	235	240
Leu	Glu	Lys	Leu	Gln	Gly	Thr	Leu	Phe	Ser	Thr	Glu	Glu	Glu	Pro		245	250	255
Ser	Lys	Leu	Leu	Val	Gln	Asn	Tyr	Arg	Ala	Leu	Gln	Pro	Leu	Asn		260	265	270
Gln	Arg	Met	Val	Phe	Ala	Ser	Phe	Ile	Gln	Ala	Gly	Ser	Ser	Tyr		275	280	285
Thr	Thr	Gly	Glu	Met	Leu	Ser	Leu	Gly	Val	Gly	Ile	Leu	Val	Gly		290	295	300
Cys	Leu	Cys	Leu	Leu	Leu	Ala	Val	Tyr	Phe	Ile	Ala	Arg	Lys	Ile		305	310	315
Arg	Lys	Lys	Arg	Leu	Glu	Asn	Arg	Lys	Ser	Val	Val	Phe	Thr	Ser		320	325	330
Ala	Gln	Ala	Thr	Thr	Glu	Ala										335		

<210> 75
 <211> 1743
 <212> DNA

<213> Homo Sapien

<400> 75

```
tgccgctgcc gccgctgctg ctgttgctcc tggcggcgcc ttggggacgg 50
gcagttccct gtgtctctgg tggtttgctt aaacctgcaa acatcacctt 100
cttatccatc aacatgaaga atgtcctaca atggactcca ccagaggggtc 150
ttcaaggagt taaagttact tacactgtgc agtatttcat cacaaattgg 200
cccaccagag gtggcactga ctacagatga gaagtccatt tctgttgctc 250
tgacagctcc agagaagtgg aagagaaatc cagaagacct tcctgtttcc 300
atgcaacaaa tatactccaa tctgaagtat aacgtgtctg tgttgaatac 350
taaatcaaac agaacgtggg ccagtggtgt gaccaaccac acgctgggtgc 400
tcacctgggt ggagccgaac actctttact gcgtacacgt ggagtccttc 450
gtcccagggc ccctcgcgg tgctcagcct tctgagaagc agtgtgccag 500
gactttgaaa gatcaatcat cagagttcaa ggctaaaatc atcttctggt 550
atgttttgcc catatctatt accgtgtttc ttttttctgt gatgggctat 600
tccatctacc gatatatcca cgttggcaaa gagaaacacc cagcaaattt 650
gattttgatt tatggaaatg aatttgacaa aagattcttt gtgcctgctg 700
aaaaaatcgt gattaacttt atcaccctca atatctcgga tgattctaaa 750
atttctcatc aggatatgag ttactggga aaaagcagtg atgtatccag 800
ccttaatgat cctcagccca gcgggaacct gaggccccct caggaggaag 850
aggaggtgaa acatttaggg tatgcttcgc atttgatgga aattttttgt 900
gactctgaag aaaacacgga aggtacttct ctcaccacgc aagagtcctt 950
cagcagaaca atacccccgg ataaaacagt cattgaatat gaatatgatg 1000
tcagaaccac tgacatttgt gcggggcctg aagagcagga gctcagtttg 1050
caggaggagg tgtccacaca aggaacatta ttggagtcgc aggcagcggt 1100
ggcagtcttg ggcccgcaaa cgttacagta ctcatacacc cctcagctcc 1150
aagacttaga cccctggcg caggagcaca cagactcgga ggaggggccc 1200
gaggaagagc catcgacgac cctggtcgac tgggatcccc aaactggcag 1250
gctgtgtatt ccttcgctgt ccagcttcga ccaggattca gagggctgcg 1300
agccttctga gggggatggg ctcgagagg agggcttct atctagactc 1350
```

tatgaggagc cggctccaga caggccacca ggagaaaatg aaacctatct 1400
catgcaattc atggaggaat ggggggttata tgtgcagatg gaaaactgat 1450
gccaacactt ccttttgcct tttgtttcct gtgcaaaca gtgagtcacc 1500
cctttgatcc cagccataaa gtacctggga tgaaagaagt tttttccagt 1550
ttgtcagtgt ctgtgagaat tacttatttc ttttctctat tctcatagca 1600
cgtgtgtgat tggttcatgc atgtaggtct cttacaatg atggtggggc 1650
tctggagtcc aggggctggc cggttgttct atgcagagaa agcagtcaat 1700
aatgtttgc cagactgggt gcagaattta ttcaggtggg tgt 1743

<210> 76

<211> 442

<212> PRT

<213> Homo Sapien

<400> 76

Met	Ser	Tyr	Asn	Gly	Leu	His	Gln	Arg	Val	Phe	Lys	Glu	Leu	Lys	1	5	10	15
Leu	Leu	Thr	Leu	Cys	Ser	Ile	Ser	Ser	Gln	Ile	Gly	Pro	Pro	Glu	20	25	30	
Val	Ala	Leu	Thr	Thr	Asp	Glu	Lys	Ser	Ile	Ser	Val	Val	Leu	Thr	35	40	45	
Ala	Pro	Glu	Lys	Trp	Lys	Arg	Asn	Pro	Glu	Asp	Leu	Pro	Val	Ser	50	55	60	
Met	Gln	Gln	Ile	Tyr	Ser	Asn	Leu	Lys	Tyr	Asn	Val	Ser	Val	Leu	65	70	75	
Asn	Thr	Lys	Ser	Asn	Arg	Thr	Trp	Ser	Gln	Cys	Val	Thr	Asn	His	80	85	90	
Thr	Leu	Val	Leu	Thr	Trp	Leu	Glu	Pro	Asn	Thr	Leu	Tyr	Cys	Val	95	100	105	
His	Val	Glu	Ser	Phe	Val	Pro	Gly	Pro	Pro	Arg	Arg	Ala	Gln	Pro	110	115	120	
Ser	Glu	Lys	Gln	Cys	Ala	Arg	Thr	Leu	Lys	Asp	Gln	Ser	Ser	Glu	125	130	135	
Phe	Lys	Ala	Lys	Ile	Ile	Phe	Trp	Tyr	Val	Leu	Pro	Ile	Ser	Ile	140	145	150	
Thr	Val	Phe	Leu	Phe	Ser	Val	Met	Gly	Tyr	Ser	Ile	Tyr	Arg	Tyr	155	160	165	
Ile	His	Val	Gly	Lys	Glu	Lys	His	Pro	Ala	Asn	Leu	Ile	Leu	Ile	170	175	180	

Tyr	Gly	Asn	Glu	Phe	Asp	Lys	Arg	Phe	Phe	Val	Pro	Ala	Glu	Lys	185	190	195
Ile	Val	Ile	Asn	Phe	Ile	Thr	Leu	Asn	Ile	Ser	Asp	Asp	Ser	Lys	200	205	210
Ile	Ser	His	Gln	Asp	Met	Ser	Leu	Leu	Gly	Lys	Ser	Ser	Asp	Val	215	220	225
Ser	Ser	Leu	Asn	Asp	Pro	Gln	Pro	Ser	Gly	Asn	Leu	Arg	Pro	Pro	230	235	240
Gln	Glu	Glu	Glu	Glu	Val	Lys	His	Leu	Gly	Tyr	Ala	Ser	His	Leu	245	250	255
Met	Glu	Ile	Phe	Cys	Asp	Ser	Glu	Glu	Asn	Thr	Glu	Gly	Thr	Ser	260	265	270
Leu	Thr	Gln	Gln	Glu	Ser	Leu	Ser	Arg	Thr	Ile	Pro	Pro	Asp	Lys	275	280	285
Thr	Val	Ile	Glu	Tyr	Glu	Tyr	Asp	Val	Arg	Thr	Thr	Asp	Ile	Cys	290	295	300
Ala	Gly	Pro	Glu	Glu	Gln	Glu	Leu	Ser	Leu	Gln	Glu	Glu	Val	Ser	305	310	315
Thr	Gln	Gly	Thr	Leu	Leu	Glu	Ser	Gln	Ala	Ala	Leu	Ala	Val	Leu	320	325	330
Gly	Pro	Gln	Thr	Leu	Gln	Tyr	Ser	Tyr	Thr	Pro	Gln	Leu	Gln	Asp	335	340	345
Leu	Asp	Pro	Leu	Ala	Gln	Glu	His	Thr	Asp	Ser	Glu	Glu	Gly	Pro	350	355	360
Glu	Glu	Glu	Pro	Ser	Thr	Thr	Leu	Val	Asp	Trp	Asp	Pro	Gln	Thr	365	370	375
Gly	Arg	Leu	Cys	Ile	Pro	Ser	Leu	Ser	Ser	Phe	Asp	Gln	Asp	Ser	380	385	390
Glu	Gly	Cys	Glu	Pro	Ser	Glu	Gly	Asp	Gly	Leu	Gly	Glu	Glu	Gly	395	400	405
Leu	Leu	Ser	Arg	Leu	Tyr	Glu	Glu	Pro	Ala	Pro	Asp	Arg	Pro	Pro	410	415	420
Gly	Glu	Asn	Glu	Thr	Tyr	Leu	Met	Gln	Phe	Met	Glu	Glu	Trp	Gly	425	430	435
Leu	Tyr	Val	Gln	Met	Glu	Asn									440		

<210> 77

<211> 1636

<212> DNA

<213> Homo Sapien

<400> 77

gaggagcggg ccgaggactc cagcgtgccc aggtctggca tcctgcactt 50
gctgccctct gacacctggg aagatggccg gcccgaggac cttcaccctt 100
ctctgtggtt tgctggcagc caccttgatc caagccaccc tcagtcccac 150
tgcagttctc atcctcggcc caaaagtcac caaagaaaag ctgacacagg 200
agctgaagga ccacaacgcc accagcatcc tgcagcagct gccgctgctc 250
agtgccatgc gggaaaagcc agccggaggc atccctgtgc tgggcagcct 300
ggtgaacacc gtctgaagc acatcatctg gctgaaggtc atcacagcta 350
acatcctcca gctgcagggtg aagccctcgg ccaatgacca ggagctgcta 400
gtcaagatcc ccttgacat ggtggctgga ttcaacacgc ccttggtcaa 450
gaccatcgtg gagttccaca tgacgactga ggccaagcc accatccgca 500
tggaacaccag tgcaagtggc cccaccgcc tggtcctcag tgactgtgcc 550
accagccatg ggagcctgcg catccaactg ctgtataagc tctccttctt 600
ggtgaacgcc ttagctaagc aggtcatgaa cctcctagtg ccatccctgc 650
ccaatctagt gaaaaaccag ctgtgtcccg tgatcgaggc ttccttcaat 700
ggcatgtatg cagacctcct gcagctgggtg aagggtgcca tttccctcag 750
cattgaccgt ctggagtttg accttctgta tcctgccatc aagggtgaca 800
ccattcagct ctacctgggg gccaaagttgt tggactcaca gggaaagggtg 850
accaagtggg tcaataactc tgcagcttcc ctgacaatgc ccaccctgga 900
caacatcccc ttcagcctca tcgtgagtca ggacgtgggtg aaagctgcag 950
tggtctgtgt gctctctcca gaagaattca tggctcctgtt ggactctgtg 1000
cttctgaga gtgcccatcg gctgaagtca agcatcgggc tgatcaatga 1050
aaaggctgca gataagctgg gatctaccca gatcgtgaag atcctaactc 1100
aggacactcc cgagtttttt atagaccaag gccatgccaa ggtggcccaa 1150
ctgatcgtgc tggaagtgtt tccctccagt gaagccctcc gccctttgtt 1200
caccctgggc atcgaagcca gctcggaagc tcagttttac accaaagggtg 1250
accaacttat actcaacttg aataacatca gctctgatcg gatccagctg 1300
atgaactctg ggattggctg gttccaacct gatgttctga aaaacatcat 1350
cactgagatc atccactcca tcctgctgcc gaaccagaat ggcaaattaa 1400

gatctgggggt cccagtgtca ttggtgaagg ccttgggatt cgaggcagct 1450
gagtcctcac tgaccaagga tgcccttggtg cttactccag cctccttggtg 1500
gaaaccacgc tctcctgtct cccagtgaag acttggtatgg cagccatcag 1550
ggaaggctgg gtcccagctg ggagtatggg tgtgagctct atagaccatc 1600
cctctctgca atcaataaac acttgctgtg gaaaaa 1636

<210> 78

<211> 484

<212> PRT

<213> Homo Sapien

<400> 78

Met	Ala	Gly	Pro	Trp	Thr	Phe	Thr	Leu	Leu	Cys	Gly	Leu	Leu	Ala	1	5	10	15
Ala	Thr	Leu	Ile	Gln	Ala	Thr	Leu	Ser	Pro	Thr	Ala	Val	Leu	Ile	20	25	30	
Leu	Gly	Pro	Lys	Val	Ile	Lys	Glu	Lys	Leu	Thr	Gln	Glu	Leu	Lys	35	40	45	
Asp	His	Asn	Ala	Thr	Ser	Ile	Leu	Gln	Gln	Leu	Pro	Leu	Leu	Ser	50	55	60	
Ala	Met	Arg	Glu	Lys	Pro	Ala	Gly	Gly	Ile	Pro	Val	Leu	Gly	Ser	65	70	75	
Leu	Val	Asn	Thr	Val	Leu	Lys	His	Ile	Ile	Trp	Leu	Lys	Val	Ile	80	85	90	
Thr	Ala	Asn	Ile	Leu	Gln	Leu	Gln	Val	Lys	Pro	Ser	Ala	Asn	Asp	95	100	105	
Gln	Glu	Leu	Leu	Val	Lys	Ile	Pro	Leu	Asp	Met	Val	Ala	Gly	Phe	110	115	120	
Asn	Thr	Pro	Leu	Val	Lys	Thr	Ile	Val	Glu	Phe	His	Met	Thr	Thr	125	130	135	
Glu	Ala	Gln	Ala	Thr	Ile	Arg	Met	Asp	Thr	Ser	Ala	Ser	Gly	Pro	140	145	150	
Thr	Arg	Leu	Val	Leu	Ser	Asp	Cys	Ala	Thr	Ser	His	Gly	Ser	Leu	155	160	165	
Arg	Ile	Gln	Leu	Leu	Tyr	Lys	Leu	Ser	Phe	Leu	Val	Asn	Ala	Leu	170	175	180	
Ala	Lys	Gln	Val	Met	Asn	Leu	Leu	Val	Pro	Ser	Leu	Pro	Asn	Leu	185	190	195	
Val	Lys	Asn	Gln	Leu	Cys	Pro	Val	Ile	Glu	Ala	Ser	Phe	Asn	Gly				

	200		205		210
Met Tyr Ala Asp	Leu Leu Gln Leu Val	Lys Val Pro Ile Ser	Leu		
	215	220	225		
Ser Ile Asp Arg	Leu Glu Phe Asp Leu	Leu Tyr Pro Ala Ile	Lys		
	230	235	240		
Gly Asp Thr Ile	Gln Leu Tyr Leu Gly	Ala Lys Leu Leu Asp	Ser		
	245	250	255		
Gln Gly Lys Val	Thr Lys Trp Phe Asn	Asn Ser Ala Ala Ser	Leu		
	260	265	270		
Thr Met Pro Thr	Leu Asp Asn Ile Pro	Phe Ser Leu Ile Val	Ser		
	275	280	285		
Gln Asp Val Val	Lys Ala Ala Val Ala	Ala Val Leu Ser Pro	Glu		
	290	295	300		
Glu Phe Met Val	Leu Leu Asp Ser Val	Leu Pro Glu Ser Ala	His		
	305	310	315		
Arg Leu Lys Ser	Ser Ile Gly Leu Ile	Asn Glu Lys Ala Ala	Asp		
	320	325	330		
Lys Leu Gly Ser	Thr Gln Ile Val Lys	Ile Leu Thr Gln Asp	Thr		
	335	340	345		
Pro Glu Phe Phe	Ile Asp Gln Gly His	Ala Lys Val Ala Gln	Leu		
	350	355	360		
Ile Val Leu Glu	Val Phe Pro Ser Ser	Glu Ala Leu Arg Pro	Leu		
	365	370	375		
Phe Thr Leu Gly	Ile Glu Ala Ser Ser	Glu Ala Gln Phe Tyr	Thr		
	380	385	390		
Lys Gly Asp Gln	Leu Ile Leu Asn Leu	Asn Asn Ile Ser Ser	Asp		
	395	400	405		
Arg Ile Gln Leu	Met Asn Ser Gly Ile	Gly Trp Phe Gln Pro	Asp		
	410	415	420		
Val Leu Lys Asn	Ile Ile Thr Glu Ile	Ile His Ser Ile Leu	Leu		
	425	430	435		
Pro Asn Gln Asn	Gly Lys Leu Arg Ser	Gly Val Pro Val Ser	Leu		
	440	445	450		
Val Lys Ala Leu	Gly Phe Glu Ala Ala	Glu Ser Ser Leu Thr	Lys		
	455	460	465		
Asp Ala Leu Val	Leu Thr Pro Ala Ser	Leu Trp Lys Pro Ser	Ser		
	470	475	480		
Pro Val Ser Gln					

<210> 79
 <211> 1475
 <212> DNA
 <213> Homo Sapien

<400> 79
 gagagaagtc agcctggcag agagactctg aaatgagga ttagaggtgt 50
 tcaaggagca agagcttcag cctgaagaca agggagcagt ccctgaagac 100
 gcttctactg agaggtctgc catggcctct cttggcctcc aacttgtggg 150
 ctacatccta ggccttctgg ggcttttggg cacactgggt gccatgctgc 200
 tccccagctg gaaaacaagt tcttatgtcg gtgccagcat tgtgacagca 250
 gttggcttct ccaagggcct ctggatggaa tgtgccacac acagcacagg 300
 catcacccag tgtgacatct atagcacctt tctgggcctg cccgctgaca 350
 tccaggctgc ccaggccatg atggtgacat ccagtgcaat ctccctccctg 400
 gcctgcatta tctctgtggt gggcatgaga tgcacagtct tctgccagga 450
 atcccagacc aaagacagag tggcggtagc aggtggagtc tttttcatcc 500
 ttggaggcct cctgggattc attcctgttg cctggaatct tcatgggatc 550
 ctacgggact tctactcacc actggtgcct gacagcatga aatttgagat 600
 tggagaggct ctttacttgg gcattatttc ttccctgttc tccctgatag 650
 ctggaatcat cctctgcttt tctgtctcat cccagagaaa tcgctccaac 700
 tactacgatg cctaccaagc ccaacctctt gccacaagga gctctccaag 750
 gcctgggtcaa cctcccaaag tcaagagtga gttcaattcc tacagcctga 800
 cagggtatgt gtgaagaacc aggggccaga gctgggggggt ggctgggtct 850
 gtgaaaaaca gtggacagca ccccgagggc cacaggtgag ggacactacc 900
 actggatcgt gtcagaaggt gctgctgagg atagactgac tttggccatt 950
 ggattgagca aaggcagaaa tgggggctag tgtaacagca tgcaggttga 1000
 attgccaagg atgctcgcca tgccagcctt tctgttttcc tcaccttgct 1050
 gctcccctgc cctaagtccc caaccctcaa cttgaaacct cattccctta 1100
 agccaggact cagaggatcc ctttgccctc tggtttacct gggaactccat 1150
 ccccaaacc actaatcaca tcccactgac tgaccctctg tgatcaaaga 1200
 ccctctctct ggctgaggtt ggctcttagc tcattgctgg ggatgggaag 1250

gagaagcagt ggcttttgtg ggcattgctc taacctactt ctcaagcttc 1300
cctccaaaga aactgattgg ccttggaacc tccatccac tcttgttatg 1350
actccacagt gtccagacta atttgtgcat gaactgaaat aaaaccatcc 1400
tacggtatcc agggaacaga aagcaggatg caggatggga ggacaggaag 1450
gcagcctggg acatttaaaa aaata 1475

<210> 80
<211> 230
<212> PRT
<213> Homo Sapien

<400> 80
Met Ala Ser Leu Gly Leu Gln Leu Val Gly Tyr Ile Leu Gly Leu
1 5 10 15
Leu Gly Leu Leu Gly Thr Leu Val Ala Met Leu Leu Pro Ser Trp
20 25 30
Lys Thr Ser Ser Tyr Val Gly Ala Ser Ile Val Thr Ala Val Gly
35 40 45
Phe Ser Lys Gly Leu Trp Met Glu Cys Ala Thr His Ser Thr Gly
50 55 60
Ile Thr Gln Cys Asp Ile Tyr Ser Thr Leu Leu Gly Leu Pro Ala
65 70 75
Asp Ile Gln Ala Ala Gln Ala Met Met Val Thr Ser Ser Ala Ile
80 85 90
Ser Ser Leu Ala Cys Ile Ile Ser Val Val Gly Met Arg Cys Thr
95 100 105
Val Phe Cys Gln Glu Ser Arg Ala Lys Asp Arg Val Ala Val Ala
110 115 120
Gly Gly Val Phe Phe Ile Leu Gly Gly Leu Leu Gly Phe Ile Pro
125 130 135
Val Ala Trp Asn Leu His Gly Ile Leu Arg Asp Phe Tyr Ser Pro
140 145 150
Leu Val Pro Asp Ser Met Lys Phe Glu Ile Gly Glu Ala Leu Tyr
155 160 165
Leu Gly Ile Ile Ser Ser Leu Phe Ser Leu Ile Ala Gly Ile Ile
170 175 180
Leu Cys Phe Ser Cys Ser Ser Gln Arg Asn Arg Ser Asn Tyr Tyr
185 190 195
Asp Ala Tyr Gln Ala Gln Pro Leu Ala Thr Arg Ser Ser Pro Arg
200 205 210

Pro Gly Gln Pro Pro Lys Val Lys Ser Glu Phe Asn Ser Tyr Ser
 215 220 225

Leu Thr Gly Tyr Val
 230

<210> 81
 <211> 1732
 <212> DNA
 <213> Homo Sapien

<400> 81
 cccacgcgtc cgcgcctctc ccttctgctg gaccttcctt cgtctctcca 50
 tctctccctc ctttccccgc gttctctttc cacctttctc ttcttcccac 100
 cttagacctc ccttctgccc ctcttttctt gccaccgct gcttctggc 150
 ccttctccga cccgcgtcta gcagcagacc tcctgggggc tgtgggttga 200
 tctgtggccc ctgtgcctcc gtgtcctttt cgtctccctt cctcccgact 250
 ccgctcccgg accagcggcc tgacctggg gaaaggatgg ttcccagagt 300
 gagggtcctc tcctccttgc tgggactcgc gctgctctgg ttccccctgg 350
 actcccacgc tcgagcccgc ccagacatgt tctgcctttt ccatgggaag 400
 agatactccc ccggcgagag ctggcacccc tacttggagc cacaaggcct 450
 gatgtactgc ctgcgtgta cctgctcaga gggcgcccat gtgagttgtt 500
 accgcctcca ctgtccgcct gtccactgcc cccagcctgt gacggagcca 550
 cagcaatgct gtcccaagtg tgtggaacct cacactccct ctggactccg 600
 ggccccacca aagtccctgcc agcacaacgg gaccatgtac caacacggag 650
 agatcttcag tgcccatgag ctgttccctt cccgcctgcc caaccagtgt 700
 gtcctctgca gctgcacaga gggccagatc tactgcggcc tcacaacctg 750
 cccgaacca ggctgcccag caccctctcc actgccagac tcctgctgcc 800
 aagcctgcaa agatgaggca agtgagcaat cggatgaaga ggacagtgtg 850
 cagtcgctcc atgggggtgag acatcctcag gatccatgtt ccagtgatgc 900
 tgggagaaaag agaggcccgg gcaccccagc cccactggc ctcagcgccc 950
 ctctgagctt catccctcgc cacttcagac ccaagggagc aggcagcaca 1000
 actgtcaaga tcgtcctgaa ggagaaacat aagaaagcct gtgtgcatgg 1050
 cgggaagacg tactcccacg gggaggtgtg gcacccggcc ttccgtgcct 1100
 tcggccccctt gcctgcac ctatgcacct gtgaggatgg ccgccaggac 1150

tgccagcgtg tgacctgtcc caccgagtag ccttgccgtc accccgagaa 1200
 agtggctggg aagtgtgtca agatttgccc agaggacaaa gcagaccctg 1250
 gccacagtga gatcagttct accaggtgtc ccaaggcacc gggccgggtc 1300
 ctcgtccaca catcggtatc cccaagccca gacaacctgc gtcgctttgc 1350
 cctggaacac gaggcctcgg acttggtgga gatctacctc tggaagctgg 1400
 taaaagatga ggaaactgag gctcagagag gtgaagtacc tggcccaagg 1450
 ccacacagcc agaattctcc acttgactca gatcaagaaa gtcaggaagc 1500
 aagacttcca gaaagaggca cagcacttcc gactgctcgc tggcccccac 1550
 gaaggtcact ggaacgtctt cctagcccag accctggagc tgaaggtcac 1600
 ggccagtcca gacaaagtga ccaagacata acaaagacct aacagttgca 1650
 gatatgagct gtataattgt tggtattata tattaataaa taagaagttg 1700
 cattaccctc aaaaaaaaaa aaaaaaaaaa aa 1732

<210> 82
 <211> 451
 <212> PRT
 <213> Homo Sapien

<400> 82
 Met Val Pro Glu Val Arg Val Leu Ser Ser Leu Leu Gly Leu Ala
 1 5 10 15
 Leu Leu Trp Phe Pro Leu Asp Ser His Ala Arg Ala Arg Pro Asp
 20 25 30
 Met Phe Cys Leu Phe His Gly Lys Arg Tyr Ser Pro Gly Glu Ser
 35 40 45
 Trp His Pro Tyr Leu Glu Pro Gln Gly Leu Met Tyr Cys Leu Arg
 50 55 60
 Cys Thr Cys Ser Glu Gly Ala His Val Ser Cys Tyr Arg Leu His
 65 70 75
 Cys Pro Pro Val His Cys Pro Gln Pro Val Thr Glu Pro Gln Gln
 80 85 90
 Cys Cys Pro Lys Cys Val Glu Pro His Thr Pro Ser Gly Leu Arg
 95 100 105
 Ala Pro Pro Lys Ser Cys Gln His Asn Gly Thr Met Tyr Gln His
 110 115 120
 Gly Glu Ile Phe Ser Ala His Glu Leu Phe Pro Ser Arg Leu Pro
 125 130 135

Asn	Gln	Cys	Val	Leu	Cys	Ser	Cys	Thr	Glu	Gly	Gln	Ile	Tyr	Cys	
				140					145					150	
Gly	Leu	Thr	Thr	Cys	Pro	Glu	Pro	Gly	Cys	Pro	Ala	Pro	Leu	Pro	
				155					160					165	
Leu	Pro	Asp	Ser	Cys	Cys	Gln	Ala	Cys	Lys	Asp	Glu	Ala	Ser	Glu	
				170					175					180	
Gln	Ser	Asp	Glu	Glu	Asp	Ser	Val	Gln	Ser	Leu	His	Gly	Val	Arg	
				185					190					195	
His	Pro	Gln	Asp	Pro	Cys	Ser	Ser	Asp	Ala	Gly	Arg	Lys	Arg	Gly	
				200					205					210	
Pro	Gly	Thr	Pro	Ala	Pro	Thr	Gly	Leu	Ser	Ala	Pro	Leu	Ser	Phe	
				215					220					225	
Ile	Pro	Arg	His	Phe	Arg	Pro	Lys	Gly	Ala	Gly	Ser	Thr	Thr	Val	
				230					235					240	
Lys	Ile	Val	Leu	Lys	Glu	Lys	His	Lys	Lys	Ala	Cys	Val	His	Gly	
				245					250					255	
Gly	Lys	Thr	Tyr	Ser	His	Gly	Glu	Val	Trp	His	Pro	Ala	Phe	Arg	
				260					265					270	
Ala	Phe	Gly	Pro	Leu	Pro	Cys	Ile	Leu	Cys	Thr	Cys	Glu	Asp	Gly	
				275					280					285	
Arg	Gln	Asp	Cys	Gln	Arg	Val	Thr	Cys	Pro	Thr	Glu	Tyr	Pro	Cys	
				290					295					300	
Arg	His	Pro	Glu	Lys	Val	Ala	Gly	Lys	Cys	Cys	Lys	Ile	Cys	Pro	
				305					310					315	
Glu	Asp	Lys	Ala	Asp	Pro	Gly	His	Ser	Glu	Ile	Ser	Ser	Thr	Arg	
				320					325					330	
Cys	Pro	Lys	Ala	Pro	Gly	Arg	Val	Leu	Val	His	Thr	Ser	Val	Ser	
				335					340					345	
Pro	Ser	Pro	Asp	Asn	Leu	Arg	Arg	Phe	Ala	Leu	Glu	His	Glu	Ala	
				350					355					360	
Ser	Asp	Leu	Val	Glu	Ile	Tyr	Leu	Trp	Lys	Leu	Val	Lys	Asp	Glu	
				365					370					375	
Glu	Thr	Glu	Ala	Gln	Arg	Gly	Glu	Val	Pro	Gly	Pro	Arg	Pro	His	
				380					385					390	
Ser	Gln	Asn	Leu	Pro	Leu	Asp	Ser	Asp	Gln	Glu	Ser	Gln	Glu	Ala	
				395					400					405	
Arg	Leu	Pro	Glu	Arg	Gly	Thr	Ala	Leu	Pro	Thr	Ala	Arg	Trp	Pro	
				410					415					420	

Pro	Arg	Arg	Ser	Leu	Glu	Arg	Leu	Pro	Ser	Pro	Asp	Pro	Gly	Ala
				425					430				435	
Glu	Gly	His	Gly	Gln	Ser	Arg	Gln	Ser	Asp	Gln	Asp	Ile	Thr	Lys
				440					445				450	

Thr

<210> 83
 <211> 2052
 <212> DNA
 <213> Homo Sapien

<400> 83
 gacagctgtg tctcgatgga gtagactctc agaacagcgc agtttgccct 50
 ccgctcacgc agagcctctc cgtggcttcc gcaccttgag cattaggcca 100
 gttctcctct tctctctaata ccatccgtca cctctcctgt catccgtttc 150
 catgccgtga ggtccattca cagaacacat ccatggctct catgctcagt 200
 ttggttctga gtctcctcaa gctgggatca gggcagtggc aggtgtttgg 250
 gccagacaag cctgtccagg ccttgggtggg ggaggacgca gcattctcct 300
 gtttcctgtc tcctaagacc aatgcagagg ccatggaagt gcggttcttc 350
 aggggccagt tctctagcgt ggtccacctc tacagggacg ggaaggacca 400
 gccatttatg cagatgccac agtatcaagg caggacaaaa ctggtgaagg 450
 attctattgc ggagggggcg atctctctga ggctggaaaa cattactgtg 500
 ttggatgctg gcctctatgg gtgcaggatt agttcccagt cttactacca 550
 gaaggccatc tgggagctac aggtgtcagc actgggctca gttcctctca 600
 tttccatcac gggatatgtt gatagagaca tccagctact ctgtcagtcc 650
 tcgggctggg tccccggcc cacagcgaag tggaaagggt cacaaggaca 700
 ggatttgtcc acagactcca ggacaaacag agacatgcat ggcctgtttg 750
 atgtggagat ctctctgacc gtccaagaga acgcccggag catatcctgt 800
 tccatgcggc atgctcatct gagccgagag gtggaatcca ggttacagat 850
 aggagatacc tttttcgagc ctatatcgtg gcacctggct accaaagtac 900
 tgggaatact ctgctgtggc ctattttttg gcattgtttg actgaagatt 950
 ttcttctcca aattccagtg gaaaatccag gcggaactgg actggagaag 1000
 aaagcacgga caggcagaat tgagagacgc ccggaaacac gcagtggagg 1050

tgactctgga tccagagacg gctcaccgga agctctgcgt ttctgatctg 1100
 aaaactgtaa cccatagaaa agctccccag gaggtgcctc actctgagaa 1150
 gagatttaca aggaagagtg tgggtggcttc tcagagtttc caagcaggga 1200
 aacattactg ggaggtggac ggaggacaca ataaaaggtg gcgcgtggga 1250
 gtgtgccggg atgatgtgga caggaggaag gagtacgtga ctttgtctcc 1300
 cgatcatggg tactgggtcc tcagactgaa tggagaacat ttgtatttca 1350
 cattaaatcc ccgtttttatc agcgtcttcc ccaggacccc acctacaaaa 1400
 ataggggtct tcctggacta tgagtgtggg accatctcct tcttcaacat 1450
 aaatgaccag tcccttattt ataccctgac atgtcgggtt gaaggcttat 1500
 tgaggcccta cattgagtat ccgtcctata atgagcaaaa tggaactccc 1550
 atagtcatct gcccagtcac ccaggaatca gagaaagagg cctcttggca 1600
 aagggcctct gcaatcccag agacaagcaa cagtgagtcc tcctcacagg 1650
 caaccacgcc cttcctcccc aggggtgaaa tgtaggatga atcacatccc 1700
 acattcttct ttagggatat taaggctctct ctcccagatc caaagtcccg 1750
 cagcagccgg ccaaggtggc ttccagatga agggggactg gcctgtccac 1800
 atgggagtca ggtgtcatgg ctgccctgag ctgggaggga agaaggctga 1850
 cattacattt agtttgctct cactccatct ggctaagtga tcttgaaata 1900
 ccacctctca ggtgaagaac cgtcaggaat tcccatctca caggctgtgg 1950
 tgtagattaa gtagacaagg aatgtgaata atgcttagat cttattgatg 2000
 acagagtgta tcctaattggg ttgttcatta tattacactt tcagtaaaaa 2050

aa 2052

<210> 84

<211> 500

<212> PRT

<213> Homo Sapien

<400> 84

Met	Ala	Leu	Met	Leu	Ser	Leu	Val	Leu	Ser	Leu	Leu	Lys	Leu	Gly
1				5					10					15
Ser	Gly	Gln	Trp	Gln	Val	Phe	Gly	Pro	Asp	Lys	Pro	Val	Gln	Ala
				20					25					30
Leu	Val	Gly	Glu	Asp	Ala	Ala	Phe	Ser	Cys	Phe	Leu	Ser	Pro	Lys
				35					40					45
Thr	Asn	Ala	Glu	Ala	Met	Glu	Val	Arg	Phe	Phe	Arg	Gly	Gln	Phe

50					55					60				
Ser	Ser	Val	Val	His	Leu	Tyr	Arg	Asp	Gly	Lys	Asp	Gln	Pro	Phe
				65					70					75
Met	Gln	Met	Pro	Gln	Tyr	Gln	Gly	Arg	Thr	Lys	Leu	Val	Lys	Asp
				80					85					90
Ser	Ile	Ala	Glu	Gly	Arg	Ile	Ser	Leu	Arg	Leu	Glu	Asn	Ile	Thr
				95					100					105
Val	Leu	Asp	Ala	Gly	Leu	Tyr	Gly	Cys	Arg	Ile	Ser	Ser	Gln	Ser
				110					115					120
Tyr	Tyr	Gln	Lys	Ala	Ile	Trp	Glu	Leu	Gln	Val	Ser	Ala	Leu	Gly
				125					130					135
Ser	Val	Pro	Leu	Ile	Ser	Ile	Thr	Gly	Tyr	Val	Asp	Arg	Asp	Ile
				140					145					150
Gln	Leu	Leu	Cys	Gln	Ser	Ser	Gly	Trp	Phe	Pro	Arg	Pro	Thr	Ala
				155					160					165
Lys	Trp	Lys	Gly	Pro	Gln	Gly	Gln	Asp	Leu	Ser	Thr	Asp	Ser	Arg
				170					175					180
Thr	Asn	Arg	Asp	Met	His	Gly	Leu	Phe	Asp	Val	Glu	Ile	Ser	Leu
				185					190					195
Thr	Val	Gln	Glu	Asn	Ala	Gly	Ser	Ile	Ser	Cys	Ser	Met	Arg	His
				200					205					210
Ala	His	Leu	Ser	Arg	Glu	Val	Glu	Ser	Arg	Val	Gln	Ile	Gly	Asp
				215					220					225
Thr	Phe	Phe	Glu	Pro	Ile	Ser	Trp	His	Leu	Ala	Thr	Lys	Val	Leu
				230					235					240
Gly	Ile	Leu	Cys	Cys	Gly	Leu	Phe	Phe	Gly	Ile	Val	Gly	Leu	Lys
				245					250					255
Ile	Phe	Phe	Ser	Lys	Phe	Gln	Trp	Lys	Ile	Gln	Ala	Glu	Leu	Asp
				260					265					270
Trp	Arg	Arg	Lys	His	Gly	Gln	Ala	Glu	Leu	Arg	Asp	Ala	Arg	Lys
				275					280					285
His	Ala	Val	Glu	Val	Thr	Leu	Asp	Pro	Glu	Thr	Ala	His	Pro	Lys
				290					295					300
Leu	Cys	Val	Ser	Asp	Leu	Lys	Thr	Val	Thr	His	Arg	Lys	Ala	Pro
				305					310					315
Gln	Glu	Val	Pro	His	Ser	Glu	Lys	Arg	Phe	Thr	Arg	Lys	Ser	Val
				320					325					330
Val	Ala	Ser	Gln	Ser	Phe	Gln	Ala	Gly	Lys	His	Tyr	Trp	Glu	Val

335	340	345
Asp Gly Gly His Asn Lys Arg Trp Arg	Val Gly Val Cys Arg Asp	
350	355	360
Asp Val Asp Arg Arg Lys Glu Tyr Val	Thr Leu Ser Pro Asp His	
365	370	375
Gly Tyr Trp Val Leu Arg Leu Asn Gly	Glu His Leu Tyr Phe Thr	
380	385	390
Leu Asn Pro Arg Phe Ile Ser Val Phe	Pro Arg Thr Pro Pro Thr	
395	400	405
Lys Ile Gly Val Phe Leu Asp Tyr Glu	Cys Gly Thr Ile Ser Phe	
410	415	420
Phe Asn Ile Asn Asp Gln Ser Leu Ile	Tyr Thr Leu Thr Cys Arg	
425	430	435
Phe Glu Gly Leu Leu Arg Pro Tyr Ile	Glu Tyr Pro Ser Tyr Asn	
440	445	450
Glu Gln Asn Gly Thr Pro Ile Val Ile	Cys Pro Val Thr Gln Glu	
455	460	465
Ser Glu Lys Glu Ala Ser Trp Gln Arg	Ala Ser Ala Ile Pro Glu	
470	475	480
Thr Ser Asn Ser Glu Ser Ser Ser Gln	Ala Thr Thr Pro Phe Leu	
485	490	495
Pro Arg Gly Glu Met		
500		

<210> 85
 <211> 1665
 <212> DNA
 <213> Homo Sapien

<400> 85
 aacagacgtt ccctcgcggc cctggcacct ctaaccccag acatgctgct 50
 gctgctgctg ccctgctct gggggagga gagggcgga ggacagaaa 100
 gtaaactgct gacgatgcag agttccgtga cggatgcagga aggcctgtgt 150
 gtccatgtgc cctgctcctt ctctacccc tcgcatggct ggatttacct 200
 tggcccagta gttcatggct actggttccg ggaaggggcc aatacagacc 250
 aggatgctcc agtggccaca aacaaccag ctcgggcagt gtgggaggag 300
 actcgggacc gattccacct ccttggggac ccacatacca agaattgcac 350
 cctgagcatc agagatgcca gaagaagtga tgcggggaga tacttctttc 400

gtatggagaa aggaagtata aaatggaatt ataaacatca ccggctctct 450
 gtgaatgtga cagccttgac ccacaggccc aacatcctca tcccaggcac 500
 cctggagtcc ggctgcccc agaatctgac ctgctctgtg ccctgggcct 550
 gtgagcaggg gacaccccct atgatctcct ggataggac ctccgtgtcc 600
 cccctggacc cctccaccac ccgctcctcg gtgctcacc tcatcccaca 650
 gcccaggac catggcacca gcctcacctg tcaggtgacc ttccctgggg 700
 ccagcgtgac cacgaacaag accgtccatc tcaacgtgtc ctacccgcct 750
 cagaacttga ccatgactgt cttccaagga gacggcacag tatccacagt 800
 cttgggaaat ggctcatctc tgtcactccc agagggccag tctctgcgcc 850
 tggctctgtgc agttgatgca gttgacagca atccccctgc caggctgagc 900
 ctgagctgga gaggcctgac cctgtgcccc tcacagccct caaacccggg 950
 ggtgctggag ctgccttggg tgcacctgag ggatgcagct gaattcacct 1000
 gcagagctca gaaccctctc ggctctcagc aggtctacct gaacgtctcc 1050
 ctgcagagca aagccacatc aggagtgact caggggggtgg tcgggggagc 1100
 tggagccaca gccctggtct tcctgtcctt ctgcgtcatc ttcgtttag 1150
 tgaggtcctg caggaagaaa tcggcaaggc cagcagcggg cgtgggagat 1200
 acgggcatag aggatgcaaa cgctgtcagg ggttcagcct ctcaggggcc 1250
 cctgactgaa ccttgggcag aagacagtcc ccagaccag cctccccag 1300
 cttctgcccc ctctcagtg ggggaaggag agctccagta tgcattcctc 1350
 agcttcaga tggatgaagc ttgggactcg cggggacagg aggccactga 1400
 caccgagtac tcggagatca agatccacag atgagaaact gcagagactc 1450
 accctgattg agggatcaca gccctccag gcaagggaga agtcagaggc 1500
 tgattcttgt agaattaaca gccctcaacg tgatgagcta tgataacact 1550
 atgaattatg tgcagagtga aaagcacaca ggctttagag tcaaagtatc 1600
 tcaaacctga atccacactg tgccctccct tttatttttt taactaaaag 1650
 acagacaaat tccta 1665

<210> 86
 <211> 463
 <212> PRT
 <213> Homo Sapien

<400> 86

Met	Leu	Leu	Leu	Leu	Leu	Pro	Leu	Leu	Trp	Gly	Arg	Glu	Arg	Ala	1	5	10	15
Glu	Gly	Gln	Thr	Ser	Lys	Leu	Leu	Thr	Met	Gln	Ser	Ser	Val	Thr	20	25	30	
Val	Gln	Glu	Gly	Leu	Cys	Val	His	Val	Pro	Cys	Ser	Phe	Ser	Tyr	35	40	45	
Pro	Ser	His	Gly	Trp	Ile	Tyr	Pro	Gly	Pro	Val	Val	His	Gly	Tyr	50	55	60	
Trp	Phe	Arg	Glu	Gly	Ala	Asn	Thr	Asp	Gln	Asp	Ala	Pro	Val	Ala	65	70	75	
Thr	Asn	Asn	Pro	Ala	Arg	Ala	Val	Trp	Glu	Glu	Thr	Arg	Asp	Arg	80	85	90	
Phe	His	Leu	Leu	Gly	Asp	Pro	His	Thr	Lys	Asn	Cys	Thr	Leu	Ser	95	100	105	
Ile	Arg	Asp	Ala	Arg	Arg	Ser	Asp	Ala	Gly	Arg	Tyr	Phe	Phe	Arg	110	115	120	
Met	Glu	Lys	Gly	Ser	Ile	Lys	Trp	Asn	Tyr	Lys	His	His	Arg	Leu	125	130	135	
Ser	Val	Asn	Val	Thr	Ala	Leu	Thr	His	Arg	Pro	Asn	Ile	Leu	Ile	140	145	150	
Pro	Gly	Thr	Leu	Glu	Ser	Gly	Cys	Pro	Gln	Asn	Leu	Thr	Cys	Ser	155	160	165	
Val	Pro	Trp	Ala	Cys	Glu	Gln	Gly	Thr	Pro	Pro	Met	Ile	Ser	Trp	170	175	180	
Ile	Gly	Thr	Ser	Val	Ser	Pro	Leu	Asp	Pro	Ser	Thr	Thr	Arg	Ser	185	190	195	
Ser	Val	Leu	Thr	Leu	Ile	Pro	Gln	Pro	Gln	Asp	His	Gly	Thr	Ser	200	205	210	
Leu	Thr	Cys	Gln	Val	Thr	Phe	Pro	Gly	Ala	Ser	Val	Thr	Thr	Asn	215	220	225	
Lys	Thr	Val	His	Leu	Asn	Val	Ser	Tyr	Pro	Pro	Gln	Asn	Leu	Thr	230	235	240	
Met	Thr	Val	Phe	Gln	Gly	Asp	Gly	Thr	Val	Ser	Thr	Val	Leu	Gly	245	250	255	
Asn	Gly	Ser	Ser	Leu	Ser	Leu	Pro	Glu	Gly	Gln	Ser	Leu	Arg	Leu	260	265	270	
Val	Cys	Ala	Val	Asp	Ala	Val	Asp	Ser	Asn	Pro	Pro	Ala	Arg	Leu	275	280	285	

Ser	Leu	Ser	Trp	Arg	Gly	Leu	Thr	Leu	Cys	Pro	Ser	Gln	Pro	Ser		290	295	300
Asn	Pro	Gly	Val	Leu	Glu	Leu	Pro	Trp	Val	His	Leu	Arg	Asp	Ala		305	310	315
Ala	Glu	Phe	Thr	Cys	Arg	Ala	Gln	Asn	Pro	Leu	Gly	Ser	Gln	Gln		320	325	330
Val	Tyr	Leu	Asn	Val	Ser	Leu	Gln	Ser	Lys	Ala	Thr	Ser	Gly	Val		335	340	345
Thr	Gln	Gly	Val	Val	Gly	Gly	Ala	Gly	Ala	Thr	Ala	Leu	Val	Phe		350	355	360
Leu	Ser	Phe	Cys	Val	Ile	Phe	Val	Val	Val	Arg	Ser	Cys	Arg	Lys		365	370	375
Lys	Ser	Ala	Arg	Pro	Ala	Ala	Gly	Val	Gly	Asp	Thr	Gly	Ile	Glu		380	385	390
Asp	Ala	Asn	Ala	Val	Arg	Gly	Ser	Ala	Ser	Gln	Gly	Pro	Leu	Thr		395	400	405
Glu	Pro	Trp	Ala	Glu	Asp	Ser	Pro	Pro	Asp	Gln	Pro	Pro	Pro	Ala		410	415	420
Ser	Ala	Arg	Ser	Ser	Val	Gly	Glu	Gly	Glu	Leu	Gln	Tyr	Ala	Ser		425	430	435
Leu	Ser	Phe	Gln	Met	Val	Lys	Pro	Trp	Asp	Ser	Arg	Gly	Gln	Glu		440	445	450
Ala	Thr	Asp	Thr	Glu	Tyr	Ser	Glu	Ile	Lys	Ile	His	Arg				455	460	

<210> 87

<211> 1176

<212> DNA

<213> Homo Sapien

<400> 87

```

agaaagctgc actctgttga gctccagggc gcagtggagg gagggagtga 50
aggagctctc tgtaccaag gaaagtgcag ctgagactca gacaagatta 100
caatgaacca actcagcttc ctgctgtttc tcatagcgac caccagagga 150
tggagtacag atgaggctaa tacttacttc aaggaatgga cctgttcttc 200
gtctccatct ctgcccagaa gctgcaagga aatcaaagac gaatgtccta 250
gtgcatttga tggcctgtat tttctccgca ctgagaatgg tgttatctac 300
cagaccttct gtgacatgac ctctgggggt ggcggctgga ccctggtggc 350
cagcgtgcat gagaatgaca tgcgtgggaa gtgcacggtg ggcgatcgct 400

```

ggtccagtca gcagggcagc aaagcagact acccagaggg ggacggcaac 450
 tgggccaact acaacacctt tggatctgca gaggcggcca cgagcgatga 500
 ctacaagaac cctggctact acgacatcca ggccaaggac ctgggcatct 550
 ggcacgtgcc caataagtcc cccatgcagc actggagaaa cagctccctg 600
 ctgaggtacc gcacggacac tggcttcctc cagacactgg gacataatct 650
 gtttggcatc taccagaaat atccagtga ataggagaa ggaaagtgtt 700
 ggactgacaa cggcccgggtg atccctgtgg tctatgattt tggcgacgcc 750
 cagaaaacag catcttatta ctcaccctat ggccagcggg aattcactgc 800
 gggatttggt cagttcaggg tatttaataa cgagagagca gccaacgcct 850
 tgtgtgctgg aatgagggtc accggatgta aactgagca tctactgcatt 900
 ggtggaggag gatactttcc agaggccagt cccagcagt gtggagattt 950
 ttctggtttt gattggagtg gatatggaac tcatgttggt tacagcagca 1000
 gccgtgagat aactgaggca gctgtgcttc tattctatcg ttgagagttt 1050
 tgtgggaggg aaccagacc tctcctccca accatgagat cccaaggatg 1100
 gagaacaact taccagtag ctagaatgtt aatggcagaa gagaaaacaa 1150
 taaatcatat tgactcaaga aaaaaa 1176

<210> 88

<211> 313

<212> PRT

<213> Homo Sapien

<400> 88

Met	Asn	Gln	Leu	Ser	Phe	Leu	Leu	Phe	Leu	Ile	Ala	Thr	Thr	Arg
1				5					10					15
Gly	Trp	Ser	Thr	Asp	Glu	Ala	Asn	Thr	Tyr	Phe	Lys	Glu	Trp	Thr
				20					25					30
Cys	Ser	Ser	Ser	Pro	Ser	Leu	Pro	Arg	Ser	Cys	Lys	Glu	Ile	Lys
				35					40					45
Asp	Glu	Cys	Pro	Ser	Ala	Phe	Asp	Gly	Leu	Tyr	Phe	Leu	Arg	Thr
				50					55					60
Glu	Asn	Gly	Val	Ile	Tyr	Gln	Thr	Phe	Cys	Asp	Met	Thr	Ser	Gly
				65					70					75
Gly	Gly	Gly	Trp	Thr	Leu	Val	Ala	Ser	Val	His	Glu	Asn	Asp	Met
				80					85					90

Arg	Gly	Lys	Cys	Thr	Val	Gly	Asp	Arg	Trp	Ser	Ser	Gln	Gln	Gly	
				95					100					105	
Ser	Lys	Ala	Asp	Tyr	Pro	Glu	Gly	Asp	Gly	Asn	Trp	Ala	Asn	Tyr	
				110					115					120	
Asn	Thr	Phe	Gly	Ser	Ala	Glu	Ala	Ala	Thr	Ser	Asp	Asp	Tyr	Lys	
				125					130					135	
Asn	Pro	Gly	Tyr	Tyr	Asp	Ile	Gln	Ala	Lys	Asp	Leu	Gly	Ile	Trp	
				140					145					150	
His	Val	Pro	Asn	Lys	Ser	Pro	Met	Gln	His	Trp	Arg	Asn	Ser	Ser	
				155					160					165	
Leu	Leu	Arg	Tyr	Arg	Thr	Asp	Thr	Gly	Phe	Leu	Gln	Thr	Leu	Gly	
				170					175					180	
His	Asn	Leu	Phe	Gly	Ile	Tyr	Gln	Lys	Tyr	Pro	Val	Lys	Tyr	Gly	
				185					190					195	
Glu	Gly	Lys	Cys	Trp	Thr	Asp	Asn	Gly	Pro	Val	Ile	Pro	Val	Val	
				200					205					210	
Tyr	Asp	Phe	Gly	Asp	Ala	Gln	Lys	Thr	Ala	Ser	Tyr	Tyr	Ser	Pro	
				215					220					225	
Tyr	Gly	Gln	Arg	Glu	Phe	Thr	Ala	Gly	Phe	Val	Gln	Phe	Arg	Val	
				230					235					240	
Phe	Asn	Asn	Glu	Arg	Ala	Ala	Asn	Ala	Leu	Cys	Ala	Gly	Met	Arg	
				245					250					255	
Val	Thr	Gly	Cys	Asn	Thr	Glu	His	His	Cys	Ile	Gly	Gly	Gly	Gly	
				260					265					270	
Tyr	Phe	Pro	Glu	Ala	Ser	Pro	Gln	Gln	Cys	Gly	Asp	Phe	Ser	Gly	
				275					280					285	
Phe	Asp	Trp	Ser	Gly	Tyr	Gly	Thr	His	Val	Gly	Tyr	Ser	Ser	Ser	
				290					295					300	
Arg	Glu	Ile	Thr	Glu	Ala	Ala	Val	Leu	Leu	Phe	Tyr	Arg			
				305					310						

<210> 89

<211> 759

<212> DNA

<213> Homo Sapien

<400> 89

ctagatttgt cggcttgccg ggagacttca ggagtcgctg tctctgaact 50

tccagcctca gagaccgccg cccttgctcc cgagggccat gggccgggtc 100

tcagggcttg tgccctctcg cttcctgacg ctctggcgc atctggtggt 150

cgtcatcacc ttattctggt cccgggacag caacatacag gcctgcctgc 200
 ctctcacgtt ccccccgag gagtatgaca agcaggacat tcagctggtg 250
 gccgcgctct ctgtcacctt gggcctcttt gcagtggagc tggccggttt 300
 cctctcagga gtctccatgt tcaacagcac ccagagcctc atctccattg 350
 gggctcactg tagtgcattc gtggccctgt ccttcttcat attcgagcgt 400
 tgggagtgca ctacgtattg gtacattttt gtcttctgca gtgcccttcc 450
 agctgtcact gaaatggctt tattcgtcac cgtctttggg ctgaaaaaga 500
 aacccttctg attaccttca tgacgggaac ctaaggacga agcctacagg 550
 ggcaagggcc gcttcgtatt cctggaagaa ggaaggcata ggcttcggtt 600
 ttcccctcgg aaactgcttc tgctggagga tatgtgttgg aataattacg 650
 tcttgagtct gggattatcc gcattgtatt tagtgctttg taataaaata 700
 tgttttgtag taacattaag acttatatac agtttttaggg gacaattaa 750
 aaaaaaaaa 759

<210> 90
 <211> 140
 <212> PRT
 <213> Homo Sapien

<400> 90
 Met Gly Arg Val Ser Gly Leu Val Pro Ser Arg Phe Leu Thr Leu
 1 5 10 15
 Leu Ala His Leu Val Val Val Ile Thr Leu Phe Trp Ser Arg Asp
 20 25 30
 Ser Asn Ile Gln Ala Cys Leu Pro Leu Thr Phe Thr Pro Glu Glu
 35 40 45
 Tyr Asp Lys Gln Asp Ile Gln Leu Val Ala Ala Leu Ser Val Thr
 50 55 60
 Leu Gly Leu Phe Ala Val Glu Leu Ala Gly Phe Leu Ser Gly Val
 65 70 75
 Ser Met Phe Asn Ser Thr Gln Ser Leu Ile Ser Ile Gly Ala His
 80 85 90
 Cys Ser Ala Ser Val Ala Leu Ser Phe Phe Ile Phe Glu Arg Trp
 95 100 105
 Glu Cys Thr Thr Tyr Trp Tyr Ile Phe Val Phe Cys Ser Ala Leu
 110 115 120
 Pro Ala Val Thr Glu Met Ala Leu Phe Val Thr Val Phe Gly Leu

	125	130	135
Lys Lys Lys Pro Phe			
140			
<210> 91			
<211> 1871			
<212> DNA			
<213> Homo Sapien			
<400> 91			
ctgggacccc	gaaaagagaa	ggggagagcg	aggggacgag agcggaggag 50
gaagatgcaa	ctgactcgct	gctgcttcgt	gttcctggtg cagggtagcc 100
tctatctggt	catctgtggc	caggatgatg	gtcctcccgg ctcagaggac 150
cctgagcgtg	atgaccacga	gggccagccc	cggccccggg tgcctcggaa 200
gcggggccac	atctcaccta	agtcccgccc	catggccaat tccactctcc 250
tagggctgct	ggccccgcct	ggggaggctt	ggggcattct tgggcagccc 300
cccaaccgcc	cgaaccacag	ccccccaccc	tcagccaagg tgaagaaaat 350
ctttggctgg	ggcgacttct	actccaacat	caagacggtg gccctgaacc 400
tgctcgtcac	agggaagatt	gtggaccatg	gcaatgggac cttcagcgtc 450
cacttccaac	acaatgccac	aggccaggga	aacatctcca tcagcctcgt 500
gccccccagt	aaagctgtag	agttccacca	ggaacagcag atcttcacg 550
aagccaaggc	ctccaaaatc	ttcaactgcc	ggatggagtg ggagaaggta 600
gaacggggcc	gccggacctc	gctttgcacc	cacgaccag ccaagatctg 650
ctcccagac	cacgctcaga	gctcagccac	ctggagctgc tcccagccct 700
tcaaagtcgt	ctgtgtctac	atcgcttct	acagcacgga ctatcggctg 750
gtccagaagg	tgtgcccaga	ttacaactac	catagtata cccctacta 800
cccatctggg	tgacccgggg	caggccacag	aggccaggcc agggctggaa 850
ggacaggcct	gcccattgag	gagaccatct	ggacaccggg cagggaaggg 900
gttgggcctc	aggcaggag	gggggtggag	acgaggagat gccaagtggg 950
gccagggcca	agtctcaagt	ggcagagaaa	gggtcccaag tgctggtccc 1000
aacctgaagc	tgtggagtga	ctagatcaca	ggagcactgg aggaggagtg 1050
ggctctctgt	gcagcctcac	agggctttgc	cacggagcca cagagagatg 1100
ctgggtcccc	gaggcctgtg	ggcaggccga	tcagtgtggc cccagatcaa 1150
gtcatgggag	gaagctaagc	ccttggttct	tgccatcctg aggaaagata 1200

gcaacaggggaggagatt tcatcagtggt ggacagcctg tcaacttagg 1250
atggatggct gagagggctt cctaggagcc agtcagcagg gtgggggtggg 1300
gccagaggag ctctccagcc ctgcctagtg ggcgcctga gccccttgtc 1350
gtgtgctgag catggcatga ggctgaagtg gcaaccctgg ggtctttgat 1400
gtcttgacag attgaccatc tgtctccagc caggccaccc ctttccaaaa 1450
ttccctcttc tgccagtact cccctgtac caccattgc tgatggcaca 1500
cccatcctta agctaagaca ggacgattgt ggtcctcca cactaaggcc 1550
acagcccatc cgcgtgctgt gtgtccctct tccaccccaa cccctgctgg 1600
ctcctctggg agcatccatg tcccggagag gggtcctca acagtcagcc 1650
tcacctgtca gaccgggggt ctcccgatc tggatggcgc cgcctctca 1700
gcagcgggca cgggtggggc ggggccgggc cgcagagcat gtgctggatc 1750
tgttctgtgt gtctgtctgt ggggtggggg aggggaggga agtcttgtga 1800
aaccgctgat tgctgacttt tgtgtgaaga atcgtgttct tggagcagga 1850
aataaagctt gccccggggc a 1871

<210> 92

<211> 252

<212> PRT

<213> Homo Sapien

<400> 92

Met	Gln	Leu	Thr	Arg	Cys	Cys	Phe	Val	Phe	Leu	Val	Gln	Gly	Ser	1	5	10	15
Leu	Tyr	Leu	Val	Ile	Cys	Gly	Gln	Asp	Asp	Gly	Pro	Pro	Gly	Ser	20	25	30	
Glu	Asp	Pro	Glu	Arg	Asp	Asp	His	Glu	Gly	Gln	Pro	Arg	Pro	Arg	35	40	45	
Val	Pro	Arg	Lys	Arg	Gly	His	Ile	Ser	Pro	Lys	Ser	Arg	Pro	Met	50	55	60	
Ala	Asn	Ser	Thr	Leu	Leu	Gly	Leu	Leu	Ala	Pro	Pro	Gly	Glu	Ala	65	70	75	
Trp	Gly	Ile	Leu	Gly	Gln	Pro	Pro	Asn	Arg	Pro	Asn	His	Ser	Pro	80	85	90	
Pro	Pro	Ser	Ala	Lys	Val	Lys	Lys	Ile	Phe	Gly	Trp	Gly	Asp	Phe	95	100	105	
Tyr	Ser	Asn	Ile	Lys	Thr	Val	Ala	Leu	Asn	Leu	Leu	Val	Thr	Gly	110	115	120	

Lys	Ile	Val	Asp	His	Gly	Asn	Gly	Thr	Phe	Ser	Val	His	Phe	Gln	125	130	135
His	Asn	Ala	Thr	Gly	Gln	Gly	Asn	Ile	Ser	Ile	Ser	Leu	Val	Pro	140	145	150
Pro	Ser	Lys	Ala	Val	Glu	Phe	His	Gln	Glu	Gln	Gln	Ile	Phe	Ile	155	160	165
Glu	Ala	Lys	Ala	Ser	Lys	Ile	Phe	Asn	Cys	Arg	Met	Glu	Trp	Glu	170	175	180
Lys	Val	Glu	Arg	Gly	Arg	Arg	Thr	Ser	Leu	Cys	Thr	His	Asp	Pro	185	190	195
Ala	Lys	Ile	Cys	Ser	Arg	Asp	His	Ala	Gln	Ser	Ser	Ala	Thr	Trp	200	205	210
Ser	Cys	Ser	Gln	Pro	Phe	Lys	Val	Val	Cys	Val	Tyr	Ile	Ala	Phe	215	220	225
Tyr	Ser	Thr	Asp	Tyr	Arg	Leu	Val	Gln	Lys	Val	Cys	Pro	Asp	Tyr	230	235	240
Asn	Tyr	His	Ser	Asp	Thr	Pro	Tyr	Tyr	Pro	Ser	Gly				245	250	

<210> 93

<211> 902

<212> DNA

<213> Homo Sapien

<400> 93

```

cggtagccat gactgaggcc gtgttcttcg gctgcgcctt cattgccttc 50
gggcctgcgc tcgcccttta tgtcttcacc atcgccatcg agccgttgcg 100
tatcatcttc ctcacgcgcg gagctttctt ctggttggtg tctctactga 150
tttcgtccct tgtttggttc atggcaagag tcattattga caacaaagat 200
ggaccaacac agaaatatct gctgatcttt ggagcgtttg tctctgtcta 250
tatccaagaa atgttccgat ttgcatatta taaactctta aaaaaagcca 300
gtgaagggtt gaagagtata aaccaggtg agacagcacc ctctatgcga 350
ctgctggcct atgtttctgg cttgggcttt ggaatcatga gtggagtatt 400
ttcctttgtg aataccctat ctgactcctt ggggccaggc acagtgggca 450
ttcatggaga ttctcctcaa ttcttccttt attcagcttt catgacgctg 500
gtcattatct tgctgcatgt attctggggc attgtatatt ttgatggctg 550
tgagaagaaa aagtggggca tcctccttat cgttctcctg acccacctgc 600

```

tggtgtcagc ccagaccttc ataagttctt attatggaat aaacctggcg 650
 tcagcattta taatcctggg gctcatgggc acctggggcat tcttagctgc 700
 gggaggcagc tgccgaagcc tgaaactctg cctgctctgc caagacaaga 750
 actttcttct ttacaaccag cgctccagat aacctcaggg aaccagcact 800
 tcccaaaccg cagactacat ctttagagga agcacaactg tgcctttttc 850
 tgaaaaatccc tttttctggg ggaattgaga aagaaataaa actatgcaga 900
 ta 902

<210> 94

<211> 257

<212> PRT

<213> Homo Sapien

<400> 94

Met	Thr	Ala	Ala	Val	Phe	Phe	Gly	Cys	Ala	Phe	Ile	Ala	Phe	Gly	1	5	10	15
Pro	Ala	Leu	Ala	Leu	Tyr	Val	Phe	Thr	Ile	Ala	Ile	Glu	Pro	Leu	20	25	30	
Arg	Ile	Ile	Phe	Leu	Ile	Ala	Gly	Ala	Phe	Phe	Trp	Leu	Val	Ser	35	40	45	
Leu	Leu	Ile	Ser	Ser	Leu	Val	Trp	Phe	Met	Ala	Arg	Val	Ile	Ile	50	55	60	
Asp	Asn	Lys	Asp	Gly	Pro	Thr	Gln	Lys	Tyr	Leu	Leu	Ile	Phe	Gly	65	70	75	
Ala	Phe	Val	Ser	Val	Tyr	Ile	Gln	Glu	Met	Phe	Arg	Phe	Ala	Tyr	80	85	90	
Tyr	Lys	Leu	Leu	Lys	Lys	Ala	Ser	Glu	Gly	Leu	Lys	Ser	Ile	Asn	95	100	105	
Pro	Gly	Glu	Thr	Ala	Pro	Ser	Met	Arg	Leu	Leu	Ala	Tyr	Val	Ser	110	115	120	
Gly	Leu	Gly	Phe	Gly	Ile	Met	Ser	Gly	Val	Phe	Ser	Phe	Val	Asn	125	130	135	
Thr	Leu	Ser	Asp	Ser	Leu	Gly	Pro	Gly	Thr	Val	Gly	Ile	His	Gly	140	145	150	
Asp	Ser	Pro	Gln	Phe	Phe	Leu	Tyr	Ser	Ala	Phe	Met	Thr	Leu	Val	155	160	165	
Ile	Ile	Leu	Leu	His	Val	Phe	Trp	Gly	Ile	Val	Phe	Phe	Asp	Gly	170	175	180	

Cys	Glu	Lys	Lys	Lys	Trp	Gly	Ile	Leu	Leu	Ile	Val	Leu	Leu	Thr
				185					190					195
His	Leu	Leu	Val	Ser	Ala	Gln	Thr	Phe	Ile	Ser	Ser	Tyr	Tyr	Gly
				200					205					210
Ile	Asn	Leu	Ala	Ser	Ala	Phe	Ile	Ile	Leu	Val	Leu	Met	Gly	Thr
				215					220					225
Trp	Ala	Phe	Leu	Ala	Ala	Gly	Gly	Ser	Cys	Arg	Ser	Leu	Lys	Leu
				230					235					240
Cys	Leu	Leu	Cys	Gln	Asp	Lys	Asn	Phe	Leu	Leu	Tyr	Asn	Gln	Arg
				245					250					255

Ser Arg

<210> 95
 <211> 1073
 <212> DNA
 <213> Homo Sapien

<400> 95
 aattttttcac cagagtaaacc ttgagaaacc aactggacct tgagtattgt 50
 acatttttgcc tcgtggaccc aaaggtagca atctgaaaca tgaggagtac 100
 gattctactg ttttgtcttc taggatcaac tcggtcatta ccacagctca 150
 aacctgcttt gggactccct cccacaaaac tggctccgga tcaggaaca 200
 ctaccaaacc aacagcagtc aaatcaggtc tttccttctt taagtctgat 250
 accattaaca cagatgctca cactggggcc agatctgcat ctgttaaatac 300
 ctgctgcagg aatgacacct ggtaccaga cccaccatt gaccctggga 350
 gggttgaatg tacaacagca actgcacca catgtgttac caatttttgt 400
 cacacaactt ggagcccagg gcactatcct aagctcagag gaattgccac 450
 aaatcttcac gagcctcatc atccattcct tgttcccggg aggcattcctg 500
 cccaccagtc aggcaggggc taatccagat gtccaggatg gaagccttcc 550
 agcaggagga gcaggtgtaa atcctgccac ccagggaacc ccagcaggcc 600
 gcctcccaac tcccagtggc acagatgacg actttgcagt gaccaccct 650
 gcaggcatcc aaaggagcac acatgccatc gaggaagcca ccacagaatac 700
 agcaaatgga attcagtaag ctgtttcaaa ttttttcaac taagctgcct 750
 cgaatttggt gatacatgtg aatctttatc attgattata ttatggaata 800
 gattgagaca cattggatag tcttagaaga aattaattct taatttacct 850

gaaaatatttc ttgaaatttc agaaaatatg ttctatgtag agaattcccaa 900
 cttttaaaaa caataattca atggataaat ctgtctttga aatataacat 950
 tatgctgcct ggatgatatg catattaaaa catatttgga aaactggaaa 1000
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1050
 aaaaaaaaaa aaaaaaaaaa aaa 1073

<210> 96
 <211> 209
 <212> PRT
 <213> Homo Sapien

<400> 96
 Met Arg Ser Thr Ile Leu Leu Phe Cys Leu Leu Gly Ser Thr Arg
 1 5 10 15
 Ser Leu Pro Gln Leu Lys Pro Ala Leu Gly Leu Pro Pro Thr Lys
 20 25 30
 Leu Ala Pro Asp Gln Gly Thr Leu Pro Asn Gln Gln Gln Ser Asn
 35 40 45
 Gln Val Phe Pro Ser Leu Ser Leu Ile Pro Leu Thr Gln Met Leu
 50 55 60
 Thr Leu Gly Pro Asp Leu His Leu Leu Asn Pro Ala Ala Gly Met
 65 70 75
 Thr Pro Gly Thr Gln Thr His Pro Leu Thr Leu Gly Gly Leu Asn
 80 85 90
 Val Gln Gln Gln Leu His Pro His Val Leu Pro Ile Phe Val Thr
 95 100 105
 Gln Leu Gly Ala Gln Gly Thr Ile Leu Ser Ser Glu Glu Leu Pro
 110 115 120
 Gln Ile Phe Thr Ser Leu Ile Ile His Ser Leu Phe Pro Gly Gly
 125 130 135
 Ile Leu Pro Thr Ser Gln Ala Gly Ala Asn Pro Asp Val Gln Asp
 140 145 150
 Gly Ser Leu Pro Ala Gly Gly Ala Gly Val Asn Pro Ala Thr Gln
 155 160 165
 Gly Thr Pro Ala Gly Arg Leu Pro Thr Pro Ser Gly Thr Asp Asp
 170 175 180
 Asp Phe Ala Val Thr Thr Pro Ala Gly Ile Gln Arg Ser Thr His
 185 190 195
 Ala Ile Glu Glu Ala Thr Thr Glu Ser Ala Asn Gly Ile Gln

<210> 97
 <211> 2848
 <212> DNA
 <213> Homo Sapien

<400> 97
 gctcaagtgc cctgccttgc cccacccagc ccagcctggc cagagccccc 50
 tggagaagga gctctcttct tgcttggcag ctggaccaag ggagccagtc 100
 ttgggcgctg gagggcctgt cctgaccatg gtccctgcct ggctgtggct 150
 gctttgtgtc tccgtccccc aggctctccc caaggcccag cctgcagagc 200
 tgtctgtgga agttccagaa aactatgggtg gaaatttccc tttatacctg 250
 accaagttgc cgctgccccg tgaggggggt gaaggccaga tcgtgctgtc 300
 aggggactca ggcaaggcaa ctgagggccc atttgctatg gatccagatt 350
 ctggcttcct gctggtgacc agggccctgg accgagagga gcaggcagag 400
 taccagctac aggtcaccct ggagatgcag gatggacatg tcttgtgggg 450
 tccacagcct gtgcttgtgc acgtgaagga tgagaatgac caggtgcccc 500
 atttctctca agccatctac agagctcggc tgagccgggg taccaggcct 550
 ggcattccct tcctcttcct tgaggcttca gaccgggatg agccaggcac 600
 agccaactcg gatcttcgat tccacatcct gagccaggct ccagcccagc 650
 cttccccaga catgttccag ctggagcctc ggctgggggc tctggccctc 700
 agccccaagg ggagcaccag ccttgaccac gccctggaga ggacctacca 750
 gctgttggtg caggtcaagg acatgggtga ccaggcctca ggccaccagg 800
 ccactgccac cgtggaagtc tccatcatag agagcacctg ggtgtcccta 850
 gagcctatcc acctggcaga gaatctcaaa gtcctatacc cgcaccacat 900
 ggcccaggta cactggagtg ggggtgatgt gcactatcac ctggagagcc 950
 atccccggg accctttgaa gtgaatgcag agggaaacct ctacgtgacc 1000
 agagagctgg acagagaagc ccaggctgag tacctgctcc aggtgcgggc 1050
 tcagaattcc catggcgagg actatgcggc ccctctggag ctgcacgtgc 1100
 tggatgatga tgagaatgac aacgtgccta tctgccctcc ccgtgacccc 1150
 acagtcagca tccctgagct cagtccacca ggtactgaag tgactagact 1200
 gtcagcagag gatgcagatg cccccggctc cccaattcc cacgttgtgt 1250

atcagctcct gagccctgag cctgaggatg gggtagaggg gagagccttc 1300
 caggtggacc ccacttcagg cagtgtgacg ctgggggtgc tcccactccg 1350
 agcaggccag aacatcctgc ttctggtgct ggccatggac ctggcaggcg 1400
 cagaggggtgg cttcagcagc acgtgtgaag tcgaagtcgc agtcacagat 1450
 atcaatgata acgcccctga gttcatcact tcccagattg ggcctataag 1500
 cctccctgag gatgtggagc ccgggactct ggtggccatg ctaacagcca 1550
 ttgatgctga cctcagagcc gccttcgcgc tcatggattt tgccattgag 1600
 aggggagaca cagaaggagc ttttggcctg gattgggagc cagactctgg 1650
 gcatgttaga ctcagactct gcaagaacct cagttatgag gcagctccaa 1700
 gtcagtaggt ggtggtggtg gtgcagagtg tggcgaagct ggtggggcca 1750
 ggcccaggcc ctggagccac cgccacggtg actgtgctag tggagagagt 1800
 gatgccaccc cccaagttgg accaggagag ctacgaggcc agtgtcccca 1850
 tcagtgcgcc agccggctct ttctgctga ccatccagcc ctccgacccc 1900
 atcagccgaa ccctcaggtt ctccctagtc aatgactcag agggctggct 1950
 ctgcattgag aaattctccg gggaggtgca caccgcccag tccctgcagg 2000
 gcgcccagcc tggggacacc tacacggtgc ttgtggaggc ccaggataca 2050
 gccctgactc ttgcccctgt gccctcccaa tacctctgca caccgcca 2100
 agaccatggc ttgatcgtga gtggaccag caaggacccc gatctggcca 2150
 gtgggacagg tccctacagc ttacccttg gtcccaaccc cacggtgcaa 2200
 cgggattggc gcctccagac tctcaatggt tcccatgcct acctcacctt 2250
 ggccctgcat tgggtggagc cacgtgaaca cataatcccc gtggtggtca 2300
 gccacaatgc ccagatgtgg cagctcctgg ttcgagtgat cgtgtgtcgc 2350
 tgcaacgtgg aggggcagtg catgcgcaag gtgggccgca tgaaggcat 2400
 gccacgaag ctgtcggcag tgggcatcct ttaggcacc ctggtagcaa 2450
 taggaatctt cctcatcctc attttcaccc actggaccat gtcaaggaag 2500
 aaggaccgg atcaaccagc agacagcgtg cccctgaagg cgactgtctg 2550
 aatggcccag gcagctctag ctgggagctt ggcctctggc tccatctgag 2600
 tcccctggga gagagcccag cacccaagat ccagcagggg acaggacaga 2650

gtagaagccc ctccatctgc cctgggggtgg aggcaccatc accatcacca 2700
ggcatgtctg cagagcctgg acaccaactt tatggactgc ccatgggagt 2750
gctccaaatg tcagggtgtt tgcccaataa taaagcccca gagaactggg 2800
ctggggcccta tgggaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaag 2848

<210> 98
<211> 807
<212> PRT
<213> Homo Sapien

<400> 98
Met Val Pro Ala Trp Leu Trp Leu Leu Cys Val Ser Val Pro Gln
1 5 10 15
Ala Leu Pro Lys Ala Gln Pro Ala Glu Leu Ser Val Glu Val Pro
20 25 30
Glu Asn Tyr Gly Gly Asn Phe Pro Leu Tyr Leu Thr Lys Leu Pro
35 40 45
Leu Pro Arg Glu Gly Ala Glu Gly Gln Ile Val Leu Ser Gly Asp
50 55 60
Ser Gly Lys Ala Thr Glu Gly Pro Phe Ala Met Asp Pro Asp Ser
65 70 75
Gly Phe Leu Leu Val Thr Arg Ala Leu Asp Arg Glu Glu Gln Ala
80 85 90
Glu Tyr Gln Leu Gln Val Thr Leu Glu Met Gln Asp Gly His Val
95 100 105
Leu Trp Gly Pro Gln Pro Val Leu Val His Val Lys Asp Glu Asn
110 115 120
Asp Gln Val Pro His Phe Ser Gln Ala Ile Tyr Arg Ala Arg Leu
125 130 135
Ser Arg Gly Thr Arg Pro Gly Ile Pro Phe Leu Phe Leu Glu Ala
140 145 150
Ser Asp Arg Asp Glu Pro Gly Thr Ala Asn Ser Asp Leu Arg Phe
155 160 165
His Ile Leu Ser Gln Ala Pro Ala Gln Pro Ser Pro Asp Met Phe
170 175 180
Gln Leu Glu Pro Arg Leu Gly Ala Leu Ala Leu Ser Pro Lys Gly
185 190 195
Ser Thr Ser Leu Asp His Ala Leu Glu Arg Thr Tyr Gln Leu Leu
200 205 210
Val Gln Val Lys Asp Met Gly Asp Gln Ala Ser Gly His Gln Ala

	215		220		225
Thr Ala Thr Val	Glu Val Ser Ile Ile	Glu Ser Thr Trp Val Ser			
	230	235		240	
Leu Glu Pro Ile	His Leu Ala Glu Asn	Leu Lys Val Leu Tyr Pro			
	245	250		255	
His His Met Ala	Gln Val His Trp Ser	Gly Gly Asp Val His Tyr			
	260	265		270	
His Leu Glu Ser	His Pro Pro Gly Pro	Phe Glu Val Asn Ala Glu			
	275	280		285	
Gly Asn Leu Tyr	Val Thr Arg Glu Leu	Asp Arg Glu Ala Gln Ala			
	290	295		300	
Glu Tyr Leu Leu	Gln Val Arg Ala Gln	Asn Ser His Gly Glu Asp			
	305	310		315	
Tyr Ala Ala Pro	Leu Glu Leu His Val	Leu Val Met Asp Glu Asn			
	320	325		330	
Asp Asn Val Pro	Ile Cys Pro Pro Arg	Asp Pro Thr Val Ser Ile			
	335	340		345	
Pro Glu Leu Ser	Pro Pro Gly Thr Glu	Val Thr Arg Leu Ser Ala			
	350	355		360	
Glu Asp Ala Asp	Ala Pro Gly Ser Pro	Asn Ser His Val Val Tyr			
	365	370		375	
Gln Leu Leu Ser	Pro Glu Pro Glu Asp	Gly Val Glu Gly Arg Ala			
	380	385		390	
Phe Gln Val Asp	Pro Thr Ser Gly Ser	Val Thr Leu Gly Val Leu			
	395	400		405	
Pro Leu Arg Ala	Gly Gln Asn Ile Leu	Leu Leu Val Leu Ala Met			
	410	415		420	
Asp Leu Ala Gly	Ala Glu Gly Gly Phe	Ser Ser Thr Cys Glu Val			
	425	430		435	
Glu Val Ala Val	Thr Asp Ile Asn Asp	His Ala Pro Glu Phe Ile			
	440	445		450	
Thr Ser Gln Ile	Gly Pro Ile Ser Leu	Pro Glu Asp Val Glu Pro			
	455	460		465	
Gly Thr Leu Val	Ala Met Leu Thr Ala	Ile Asp Ala Asp Leu Glu			
	470	475		480	
Pro Ala Phe Arg	Leu Met Asp Phe Ala	Ile Glu Arg Gly Asp Thr			
	485	490		495	
Glu Gly Thr Phe	Gly Leu Asp Trp Glu	Pro Asp Ser Gly His Val			

				500					505					510
Arg	Leu	Arg	Leu	Cys	Lys	Asn	Leu	Ser	Tyr	Glu	Ala	Ala	Pro	Ser
				515					520					525
His	Glu	Val	Val	Val	Val	Val	Gln	Ser	Val	Ala	Lys	Leu	Val	Gly
				530					535					540
Pro	Gly	Pro	Gly	Pro	Gly	Ala	Thr	Ala	Thr	Val	Thr	Val	Leu	Val
				545					550					555
Glu	Arg	Val	Met	Pro	Pro	Pro	Lys	Leu	Asp	Gln	Glu	Ser	Tyr	Glu
				560					565					570
Ala	Ser	Val	Pro	Ile	Ser	Ala	Pro	Ala	Gly	Ser	Phe	Leu	Leu	Thr
				575					580					585
Ile	Gln	Pro	Ser	Asp	Pro	Ile	Ser	Arg	Thr	Leu	Arg	Phe	Ser	Leu
				590					595					600
Val	Asn	Asp	Ser	Glu	Gly	Trp	Leu	Cys	Ile	Glu	Lys	Phe	Ser	Gly
				605					610					615
Glu	Val	His	Thr	Ala	Gln	Ser	Leu	Gln	Gly	Ala	Gln	Pro	Gly	Asp
				620					625					630
Thr	Tyr	Thr	Val	Leu	Val	Glu	Ala	Gln	Asp	Thr	Ala	Leu	Thr	Leu
				635					640					645
Ala	Pro	Val	Pro	Ser	Gln	Tyr	Leu	Cys	Thr	Pro	Arg	Gln	Asp	His
				650					655					660
Gly	Leu	Ile	Val	Ser	Gly	Pro	Ser	Lys	Asp	Pro	Asp	Leu	Ala	Ser
				665					670					675
Gly	His	Gly	Pro	Tyr	Ser	Phe	Thr	Leu	Gly	Pro	Asn	Pro	Thr	Val
				680					685					690
Gln	Arg	Asp	Trp	Arg	Leu	Gln	Thr	Leu	Asn	Gly	Ser	His	Ala	Tyr
				695					700					705
Leu	Thr	Leu	Ala	Leu	His	Trp	Val	Glu	Pro	Arg	Glu	His	Ile	Ile
				710					715					720
Pro	Val	Val	Val	Ser	His	Asn	Ala	Gln	Met	Trp	Gln	Leu	Leu	Val
				725					730					735
Arg	Val	Ile	Val	Cys	Arg	Cys	Asn	Val	Glu	Gly	Gln	Cys	Met	Arg
				740					745					750
Lys	Val	Gly	Arg	Met	Lys	Gly	Met	Pro	Thr	Lys	Leu	Ser	Ala	Val
				755					760					765
Gly	Ile	Leu	Val	Gly	Thr	Leu	Val	Ala	Ile	Gly	Ile	Phe	Leu	Ile
				770					775					780
Leu	Ile	Phe	Thr	His	Trp	Thr	Met	Ser	Arg	Lys	Lys	Asp	Pro	Asp

785

790

795

Gln Pro Ala Asp Ser Val Pro Leu Lys Ala Thr Val
800 805

<210> 99

<211> 2436

<212> DNA

<213> Homo Sapien

<400> 99

```

ggctgaccgt gctacattgc ctggaggaag cctaaggaac ccaggcatcc 50
agctgcccac gcctgagtcc aagattcttc ccaggaacac aaacgtagga 100
gaccacgct cctggaagca ccagccttta tctcttcacc ttcaagtccc 150
ctttctcaag aatcctctgt tctttgccct ctaaagtctt ggtacatcta 200
ggaccagggc atcttgcttt ccagccacaa agagacagat gaagatgcag 250
aaaggaaatg ttctccttat gtttggctta ctattgcatt tagaagctgc 300
aacaaattcc aatgagacta gcacctctgc caaactgga tccagtgtga 350
tctccagtgg agccagcaca gccaccaact ctgggtccag tgtgacctcc 400
agtgggggtca gcacagccac catctcaggg tccagcgtga cctccaatgg 450
ggtcagcata gtcaccaact ctgagttcca tacaacctcc agtgggatca 500
gcacagccac caactctgag ttcagcacag cgtccagtgg gatcagcata 550
gccaccaact ctgagtccag cacaacctcc agtggggcca gcacagccac 600
caactctgag tccagcacac cctccagtgg ggccagcaca gtcaccaact 650
ctgggtccag tgtgacctcc agtggagcca gcactgccac caactctgag 700
tccagcacag tgtccagtag ggccagcact gccaccaact ctgagtctag 750
cacactctcc agtggggcca gcacagccac caactctgac tccagcaca 800
cctccagtgg ggctagcaca gccaccaact ctgagtccag cacaacctcc 850
agtggggcca gcacagccac caactctgag tccagcacag tgtccagtag 900
ggccagcact gccaccaact ctgagtccag cacaacctcc agtggggcca 950
gcacagccac caactctgag tccagaacga cctccaatgg ggctggcaca 1000
gccaccaact ctgagtccag cagcacctcc agtggggcca gcacagccac 1050
caactctgac tccagcacag tgtccagtgg ggccagcact gccaccaact 1100
ctgagtccag cagcacctcc agtggggcca gcacagccac caactctgag 1150

```

tccagcacga cctccagtgg ggctagcaca gccaccaact ctgactccag 1200
cacaacctcc agtgggggccc gcacagccac caactctgag tccagcacag 1250
tgtccagtgg gatcagcaca gtcaccaatt ctgagtccag cacaccctcc 1300
agtgggggcca acacagccac caactctgag tccagtacga cctccagtgg 1350
ggccaacaca gccaccaact ctgagtccag cacagtgtcc agtgggggcca 1400
gcaactgccac caactctgag tccagcacia cctccagtgg ggtcagcaca 1450
gccaccaact ctgagtccag cacaacctcc agtgggggcta gcacagccac 1500
caactctgac tccagcacia cctccagtga ggccagcaca gccaccaact 1550
ctgagtctag cacagtgtcc agtgggatca gcacagtcac caattctgag 1600
tccagcacia cctccagtgg ggccaacaca gccaccaact ctgggtccag 1650
tgtgacctct gcaggctctg gaacagcagc tctgactgga atgcacacia 1700
cttcccatag tgcattctact gcagtgagtg aggcaaagcc tgggtgggtcc 1750
ctggtgccgt gggaaatctt cctcatcacc ctgggtctcg ttgtggcggc 1800
cgtgggggctc tttgctgggc tcttcttctg tgtgagaaac agcctgtccc 1850
tgagaaacac cttaacaca gctgtctacc accctcatgg cctcaaccat 1900
ggccttggtc caggccctgg agggaaatcat ggagcccccc acaggcccag 1950
gtggagtcct aactggttct ggaggagacc agtatcatcg atagccatgg 2000
agatgagcgg gaggaacagc gggccctgag cagccccgga agcaagtgcc 2050
gcattcttca ggaaggaaga gacctgggca cccaagacct ggtttctctt 2100
cattcatccc aggagacccc tcccagcttt gtttgagatc ctgaaaatct 2150
tgaagaaggt attcctcacc tttcttgcct ttaccagaca ctggaaagag 2200
aatactatat tgctcattta gctaagaaat aaatacatct catctaacac 2250
acacgacaaa gagaagctgt gcttgccccg ggggtgggtat ctagctctga 2300
gatgaactca gttataggag aaaacctcca tgctggactc catctggcat 2350
tcaaaatctc cacagtaaaa tccaaagacc tcaaaaaaaaa aaaaaaaaaa 2400
aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa 2436

<210> 100

<211> 596

<212> PRT

<213> Homo Sapien

<400> 100

Met	Lys	Met	Gln	Lys	Gly	Asn	Val	Leu	Leu	Met	Phe	Gly	Leu	Leu
1				5					10					15
Leu	His	Leu	Glu	Ala	Ala	Thr	Asn	Ser	Asn	Glu	Thr	Ser	Thr	Ser
				20					25					30
Ala	Asn	Thr	Gly	Ser	Ser	Val	Ile	Ser	Ser	Gly	Ala	Ser	Thr	Ala
				35					40					45
Thr	Asn	Ser	Gly	Ser	Ser	Val	Thr	Ser	Ser	Gly	Val	Ser	Thr	Ala
				50					55					60
Thr	Ile	Ser	Gly	Ser	Ser	Val	Thr	Ser	Asn	Gly	Val	Ser	Ile	Val
				65					70					75
Thr	Asn	Ser	Glu	Phe	His	Thr	Thr	Ser	Ser	Gly	Ile	Ser	Thr	Ala
				80					85					90
Thr	Asn	Ser	Glu	Phe	Ser	Thr	Ala	Ser	Ser	Gly	Ile	Ser	Ile	Ala
				95					100					105
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala
				110					115					120
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Pro	Ser	Ser	Gly	Ala	Ser	Thr	Val
				125					130					135
Thr	Asn	Ser	Gly	Ser	Ser	Val	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala
				140					145					150
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Val	Ser	Ser	Arg	Ala	Ser	Thr	Ala
				155					160					165
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Leu	Ser	Ser	Gly	Ala	Ser	Thr	Ala
				170					175					180
Thr	Asn	Ser	Asp	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala
				185					190					195
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala
				200					205					210
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Val	Ser	Ser	Arg	Ala	Ser	Thr	Ala
				215					220					225
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala
				230					235					240
Thr	Asn	Ser	Glu	Ser	Arg	Thr	Thr	Ser	Asn	Gly	Ala	Gly	Thr	Ala
				245					250					255
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala
				260					265					270
Thr	Asn	Ser	Asp	Ser	Ser	Thr	Val	Ser	Ser	Gly	Ala	Ser	Thr	Ala
				275					280					285

Thr	Asn	Ser	Glu	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala	290	295	300
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala	305	310	315
Thr	Asn	Ser	Asp	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Gly	Thr	Ala	320	325	330
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Val	Ser	Ser	Gly	Ile	Ser	Thr	Val	335	340	345
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Pro	Ser	Ser	Gly	Ala	Asn	Thr	Ala	350	355	360
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Asn	Thr	Ala	365	370	375
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Val	Ser	Ser	Gly	Ala	Ser	Thr	Ala	380	385	390
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Val	Ser	Thr	Ala	395	400	405
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala	410	415	420
Thr	Asn	Ser	Asp	Ser	Ser	Thr	Thr	Ser	Ser	Glu	Ala	Ser	Thr	Ala	425	430	435
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Val	Ser	Ser	Gly	Ile	Ser	Thr	Val	440	445	450
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Asn	Thr	Ala	455	460	465
Thr	Asn	Ser	Gly	Ser	Ser	Val	Thr	Ser	Ala	Gly	Ser	Gly	Thr	Ala	470	475	480
Ala	Leu	Thr	Gly	Met	His	Thr	Thr	Ser	His	Ser	Ala	Ser	Thr	Ala	485	490	495
Val	Ser	Glu	Ala	Lys	Pro	Gly	Gly	Ser	Leu	Val	Pro	Trp	Glu	Ile	500	505	510
Phe	Leu	Ile	Thr	Leu	Val	Ser	Val	Val	Ala	Ala	Val	Gly	Leu	Phe	515	520	525
Ala	Gly	Leu	Phe	Phe	Cys	Val	Arg	Asn	Ser	Leu	Ser	Leu	Arg	Asn	530	535	540
Thr	Phe	Asn	Thr	Ala	Val	Tyr	His	Pro	His	Gly	Leu	Asn	His	Gly	545	550	555
Leu	Gly	Pro	Gly	Pro	Gly	Gly	Asn	His	Gly	Ala	Pro	His	Arg	Pro	560	565	570

Arg Trp Ser Pro Asn Trp Phe Trp Arg Arg Pro Val Ser Ser Ile
575 580 585

Ala Met Glu Met Ser Gly Arg Asn Ser Gly Pro
590 595

<210> 101

<211> 1728

<212> DNA

<213> Homo Sapien

<400> 101

```

ggccggacgc ctccgcgtta cgggatgaat taacggcggg ttccgcacgg 50

aggttgtgac ccctacggag cccagcttg cccacgcacc ccaactcggcg 100
tcgcgcggcg tgccctgctt gtcacagggtg ggaggctgga actatcaggc 150

tgaaaaacag agtgggtact ctcttctggg aagctggcaa caaatggatg 200

atgtgatata tgcattccag gggaagggaa attgtggtgc ttctgaaccc 250

atgggtcaatt aacgaggcag tttctagcta ctgcacgtac ttcataaagc 300

aggactctaa aagctttgga atcatggtgt catggaaagg gatttacttt 350

atactgactc tgttttgagg aagctttttt ggaagcattt tcatgctgag 400

tcccttttta cctttgatgt ttgtaaaccc atcttggtat cgctggatca 450

acaaccgcct tgtggcaaca tggctcacc tacctgtggc attattggag 500

accatgtttg gtgtaaaagt gattataact ggggatgcat ttgttcctgg 550

agaaagaagt gtcattatca tgaaccatcg gacaagaatg gactggatgt 600

tcctgtggaa ttgcctgatg cgatatagct acctcagatt ggagaaaatt 650

tgccctcaaag cgagtctcaa aggtgttcct ggatttggtt gggccatgca 700

ggctgctgcc tatatcttca ttcataggaa atggaaggat gacaagagcc 750

atctcgaaga catgattgat tacttttgtg atattcacga accacttcaa 800

ctcctcatat tcccagaagg gactgatctc acagaaaaca gcaagtctcg 850

aagtaatgca tttgctgaaa aaaatggact tcagaaatat gaatatgttt 900

tacatccaag aactacaggc tttacttttg tggtagaccg tctaagagaa 950

ggtaagaacc ttgatgctgt ccatgatatc actgtggcgt atcctcacia 1000

cattcctcaa tcagagaagc acctcctcca aggagacttt cccagggaaa 1050

tccactttca cgtccaccgg tatccaatag acaccctccc cacatccaag 1100

gaggaccttc aactctggtg ccacaaacgg tgggaagaga aagaagagag 1150

```

gctgcgttcc ttctatcaag gggagaagaa tttttatttt accggacaga 1200
gtgtcattcc accttgcaag tctgaactca gggtccttgt ggtcaaattg 1250
ctctctatac tgtattggac cctgttcagc cctgcaatgt gcctactcat 1300
atatttgtac agtcttggtta agtggtatatt tataatcacc attgtaattct 1350
ttgtgctgca agagagaata tttggtggac tggagatcat agaacttgca 1400
tgttaccgac ttttacacaa acagccacat ttaaattcaa agaaaaatga 1450
gtaagattat aagggttgcc atgtgaaaac ctagagcata ttttggaaat 1500
gttctaaacc tttctaagct cagatgcatt tttgcatgac tatgtcgaat 1550
atctcttact gccatcatta tttgttaaag atattttgca cttaattttg 1600
tgggaaaaat attgctacaa ttttttttaa tctctgaatg taatttcgat 1650
actgtgtaca tagcaggggag tgatcggggg gaaataactt gggccagaat 1700
attattaaac aatcatcagg ctttttaa 1728

<210> 102

<211> 414

<212> PRT

<213> Homo Sapien

<400> 102

Met	His	Ser	Arg	Gly	Arg	Glu	Ile	Val	Val	Leu	Leu	Asn	Pro	Trp	1	5	10	15
Ser	Ile	Asn	Glu	Ala	Val	Ser	Ser	Tyr	Cys	Thr	Tyr	Phe	Ile	Lys	20	25	30	
Gln	Asp	Ser	Lys	Ser	Phe	Gly	Ile	Met	Val	Ser	Trp	Lys	Gly	Ile	35	40	45	
Tyr	Phe	Ile	Leu	Thr	Leu	Phe	Trp	Gly	Ser	Phe	Phe	Gly	Ser	Ile	50	55	60	
Phe	Met	Leu	Ser	Pro	Phe	Leu	Pro	Leu	Met	Phe	Val	Asn	Pro	Ser	65	70	75	
Trp	Tyr	Arg	Trp	Ile	Asn	Asn	Arg	Leu	Val	Ala	Thr	Trp	Leu	Thr	80	85	90	
Leu	Pro	Val	Ala	Leu	Leu	Glu	Thr	Met	Phe	Gly	Val	Lys	Val	Ile	95	100	105	
Ile	Thr	Gly	Asp	Ala	Phe	Val	Pro	Gly	Glu	Arg	Ser	Val	Ile	Ile	110	115	120	
Met	Asn	His	Arg	Thr	Arg	Met	Asp	Trp	Met	Phe	Leu	Trp	Asn	Cys	125	130	135	

Leu	Met	Arg	Tyr	Ser	Tyr	Leu	Arg	Leu	Glu	Lys	Ile	Cys	Leu	Lys	140	145	150
Ala	Ser	Leu	Lys	Gly	Val	Pro	Gly	Phe	Gly	Trp	Ala	Met	Gln	Ala	155	160	165
Ala	Ala	Tyr	Ile	Phe	Ile	His	Arg	Lys	Trp	Lys	Asp	Asp	Lys	Ser	170	175	180
His	Phe	Glu	Asp	Met	Ile	Asp	Tyr	Phe	Cys	Asp	Ile	His	Glu	Pro	185	190	195
Leu	Gln	Leu	Leu	Ile	Phe	Pro	Glu	Gly	Thr	Asp	Leu	Thr	Glu	Asn	200	205	210
Ser	Lys	Ser	Arg	Ser	Asn	Ala	Phe	Ala	Glu	Lys	Asn	Gly	Leu	Gln	215	220	225
Lys	Tyr	Glu	Tyr	Val	Leu	His	Pro	Arg	Thr	Thr	Gly	Phe	Thr	Phe	230	235	240
Val	Val	Asp	Arg	Leu	Arg	Glu	Gly	Lys	Asn	Leu	Asp	Ala	Val	His	245	250	255
Asp	Ile	Thr	Val	Ala	Tyr	Pro	His	Asn	Ile	Pro	Gln	Ser	Glu	Lys	260	265	270
His	Leu	Leu	Gln	Gly	Asp	Phe	Pro	Arg	Glu	Ile	His	Phe	His	Val	275	280	285
His	Arg	Tyr	Pro	Ile	Asp	Thr	Leu	Pro	Thr	Ser	Lys	Glu	Asp	Leu	290	295	300
Gln	Leu	Trp	Cys	His	Lys	Arg	Trp	Glu	Glu	Lys	Glu	Glu	Arg	Leu	305	310	315
Arg	Ser	Phe	Tyr	Gln	Gly	Glu	Lys	Asn	Phe	Tyr	Phe	Thr	Gly	Gln	320	325	330
Ser	Val	Ile	Pro	Pro	Cys	Lys	Ser	Glu	Leu	Arg	Val	Leu	Val	Val	335	340	345
Lys	Leu	Leu	Ser	Ile	Leu	Tyr	Trp	Thr	Leu	Phe	Ser	Pro	Ala	Met	350	355	360
Cys	Leu	Leu	Ile	Tyr	Leu	Tyr	Ser	Leu	Val	Lys	Trp	Tyr	Phe	Ile	365	370	375
Ile	Thr	Ile	Val	Ile	Phe	Val	Leu	Gln	Glu	Arg	Ile	Phe	Gly	Gly	380	385	390
Leu	Glu	Ile	Ile	Glu	Leu	Ala	Cys	Tyr	Arg	Leu	Leu	His	Lys	Gln	395	400	405
Pro	His	Leu	Asn	Ser	Lys	Lys	Asn	Glu							410		

<210> 103
<211> 2403
<212> DNA
<213> Homo Sapien

<400> 103
cggctcgagc ggctcgagtg aagagcctct ccacggctcc tgcgcctgag 50
acagctggcc tgacctccaa atcatccatc caccctgct gtcactgtt 100
ttcatagtgt gagatcaacc cacaggaata tccatggctt ttgtgctcat 150
tttggttctc agtttctacg agctgggtgc aggacagtgg caagtcactg 200
gaccgggcaa gtttgtccag gccttgggtg gggaggacgc cgtgttctcc 250
tgctccctct ttcctgagac cagtgcagag gctatggaag tgcggttctt 300
caggaatcag ttccatgctg tgggccacct ctacagagat ggggaagact 350
gggaatctaa gcagatgcca cagtatcgag ggagaactga gtttgtgaag 400
gactccattg caggggggcg tgtctctcta aggctaaaaa acatcactcc 450
ctcggacatc ggctgtatg ggtgctggtt cagttcccag atttacgatg 500
aggaggccac ctgggagctg cgggtggcag cactgggctc acttcctctc 550
atttccatcg tgggatatgt tgacggaggt atccagttac tctgcctgtc 600
ctcaggctgg tttccccagc ccacagccaa gtggaaaggt ccacaaggac 650
aggatttgtc ttcagactcc agagcaaagt cagatgggta cagcctgtat 700
gatgtggaga tctccattat agtccaggaa aatgctggga gcatattgtg 750
ttccatccac cttgctgagc agagtcatga ggtggaatcc aaggtattga 800
taggagagac gtttttccag ccctcacctt ggcgcttggc ttctatttta 850
ctcgggttac tctgtggtgc cctgtgtggt gttgtcatgg ggatgataat 900
tgttttcttc aaatccaaaag ggaaaatcca ggcggaactg gactggagaa 950
gaaagcacgg acaggcagaa ttgagagacg cccggaaaaca cgcagtggag 1000
gtgactctgg atccagagac ggctcaccgc aagctctgcg tttctgatct 1050
gaaaactgta acccatagaa aagctcccca ggaggtgcct cactctgaga 1100
agagatttac aaggaagagt gtggtggctt ctcagggttt ccaagcaggg 1150
agacattact gggagggtgga cgtgggacaa aatgtagggg ggtatgtggg 1200
agtgtgtcgg gatgacgtag acagggggaa gaacaatgtg actttgtctc 1250
ccaacaatgg gtattgggtc ctcagactga caacagaaca tttgtatttc 1300

acattcaatc cccattttat cagcctcccc cccagcaccc ctcctacacg 1350
 agtaggggtc ttcctggact atgagggtgg gaccatctcc ttcttcaata 1400
 caaatgacca gtcccttatt tataccctgc tgacatgtca gtttgaaggc 1450
 ttgttgagac cctatatcca gcatgcatg tatgacgagg aaaaggggac 1500
 tcccatattc atatgtccag tgtcctgggg atgagacaga gaagaccctg 1550
 cttaaagggc cccacaccac agaccagac acagccaagg gagagtgtc 1600
 ccgacaggtg gcccagctt cctctccga gcctgcatc agagagtcac 1650
 gccccccact ctcctttagg gagctgaggt tcttctgccc tgagccctgc 1700
 agcagcggca gtcacagctt ccagatgagg ggggattggc ctgaccctgt 1750
 gggagtccga agccatggct gccctgaagt ggggacggaa tagactcaca 1800
 ttaggtttag tttgtgaaaa ctccatccag ctaagcgatc ttgaacaagt 1850
 cacaacctcc caggctctc atttgctagt cacggacagt gattcctgcc 1900
 tcacaggtga agattaaaga gacaacgaat gtgaatcatg cttgcagggt 1950
 tgagggcaca gtgtttgcta atgatgtgtt tttatattat acattttccc 2000
 accataaact ctgtttgctt attccacatt aatttacttt tctctatacc 2050
 aaatcaccca tggaatagtt attgaacacc tgctttgtga ggctcaaaga 2100
 ataaagagga ggtaggattt ttcactgatt ctataagccc agcattacct 2150
 gataccaaaa ccaggcaaaag aaaacagaag aagaggaagg aaaactacag 2200
 gtccatatcc ctcatataca cagacacaaa aattctaaat aaaattttta 2250
 caaattaaac taaacaatat atttaaagat gatataaac tactcagtgt 2300
 ggtttgtccc acaaatgcag agttggttta atatttaa atcaaccagt 2350
 gtaattcagc acattaataa agtaaaaaag aaaaccataa aaaaaaaaaa 2400
 aaa 2403

<210> 104

<211> 466

<212> PRT

<213> Homo Sapien

<400> 104

Met	Ala	Phe	Val	Leu	Ile	Leu	Val	Leu	Ser	Phe	Tyr	Glu	Leu	Val
1				5				10					15	

Ser Gly Gln Trp Gln Val Thr Gly Pro Gly Lys Phe Val Gln Ala

20					25					30				
Leu	Val	Gly	Glu	Asp	Ala	Val	Phe	Ser	Cys	Ser	Leu	Phe	Pro	Glu
				35					40					45
Thr	Ser	Ala	Glu	Ala	Met	Glu	Val	Arg	Phe	Phe	Arg	Asn	Gln	Phe
				50					55					60
His	Ala	Val	Val	His	Leu	Tyr	Arg	Asp	Gly	Glu	Asp	Trp	Glu	Ser
				65					70					75
Lys	Gln	Met	Pro	Gln	Tyr	Arg	Gly	Arg	Thr	Glu	Phe	Val	Lys	Asp
				80					85					90
Ser	Ile	Ala	Gly	Gly	Arg	Val	Ser	Leu	Arg	Leu	Lys	Asn	Ile	Thr
				95					100					105
Pro	Ser	Asp	Ile	Gly	Leu	Tyr	Gly	Cys	Trp	Phe	Ser	Ser	Gln	Ile
				110					115					120
Tyr	Asp	Glu	Glu	Ala	Thr	Trp	Glu	Leu	Arg	Val	Ala	Ala	Leu	Gly
				125					130					135
Ser	Leu	Pro	Leu	Ile	Ser	Ile	Val	Gly	Tyr	Val	Asp	Gly	Gly	Ile
				140					145					150
Gln	Leu	Leu	Cys	Leu	Ser	Ser	Gly	Trp	Phe	Pro	Gln	Pro	Thr	Ala
				155					160					165
Lys	Trp	Lys	Gly	Pro	Gln	Gly	Gln	Asp	Leu	Ser	Ser	Asp	Ser	Arg
				170					175					180
Ala	Asn	Ala	Asp	Gly	Tyr	Ser	Leu	Tyr	Asp	Val	Glu	Ile	Ser	Ile
				185					190					195
Ile	Val	Gln	Glu	Asn	Ala	Gly	Ser	Ile	Leu	Cys	Ser	Ile	His	Leu
				200					205					210
Ala	Glu	Gln	Ser	His	Glu	Val	Glu	Ser	Lys	Val	Leu	Ile	Gly	Glu
				215					220					225
Thr	Phe	Phe	Gln	Pro	Ser	Pro	Trp	Arg	Leu	Ala	Ser	Ile	Leu	Leu
				230					235					240
Gly	Leu	Leu	Cys	Gly	Ala	Leu	Cys	Gly	Val	Val	Met	Gly	Met	Ile
				245					250					255
Ile	Val	Phe	Phe	Lys	Ser	Lys	Gly	Lys	Ile	Gln	Ala	Glu	Leu	Asp
				260					265					270
Trp	Arg	Arg	Lys	His	Gly	Gln	Ala	Glu	Leu	Arg	Asp	Ala	Arg	Lys
				275					280					285
His	Ala	Val	Glu	Val	Thr	Leu	Asp	Pro	Glu	Thr	Ala	His	Pro	Lys
				290					295					300
Leu	Cys	Val	Ser	Asp	Leu	Lys	Thr	Val	Thr	His	Arg	Lys	Ala	Pro

	305		310		315
Gln Glu Val Pro	His Ser Glu Lys Arg	Phe Thr Arg Lys Ser	Val		
	320	325	330		
Val Ala Ser Gln	Gly Phe Gln Ala Gly	Arg His Tyr Trp Glu	Val		
	335	340	345		
Asp Val Gly Gln	Asn Val Gly Trp Tyr	Val Gly Val Cys Arg	Asp		
	350	355	360		
Asp Val Asp Arg	Gly Lys Asn Asn Val	Thr Leu Ser Pro Asn	Asn		
	365	370	375		
Gly Tyr Trp Val	Leu Arg Leu Thr Thr	Glu His Leu Tyr Phe	Thr		
	380	385	390		
Phe Asn Pro His	Phe Ile Ser Leu Pro	Pro Ser Thr Pro Pro	Thr		
	395	400	405		
Arg Val Gly Val	Phe Leu Asp Tyr Glu	Gly Gly Thr Ile Ser	Phe		
	410	415	420		
Phe Asn Thr Asn	Asp Gln Ser Leu Ile	Tyr Thr Leu Leu Thr	Cys		
	425	430	435		
Gln Phe Glu Gly	Leu Leu Arg Pro Tyr	Ile Gln His Ala Met	Tyr		
	440	445	450		
Asp Glu Glu Lys	Gly Thr Pro Ile Phe	Ile Cys Pro Val Ser	Trp		
	455	460	465		

Gly

<210> 105

<211> 2103

<212> DNA

<213> Homo Sapien

<400> 105

```

ccttcacagg actcttcatt gctggttggc aatgatgtat cggccagatg 50

tggtgagggc taggaaaaga gtttgttggg aaccctgggt tatcggcctc 100

gtcatcttca tatccctgat tgtcctggca gtgtgcattg gactcactgt 150

tcattatgtg agatataatc aaaagaagac ctacaattac tatagcacat 200

tgtcatttac aactgacaaa ctatatgctg agtttggcag agaggcttct 250

aacaatttta cagaaatgag ccagagactt gaatcaatgg tgaaaaatgc 300

at tt t t a t a a t t c c a t t a a g g g a a g a a t t t g t c a a g t c t c a g g t t a t c a 350

a g t t c a g t c a a c a g a a g c a t g g a g t g t t g g c t c a t a t g c t g t t g a t t t g t 400

a g a t t t c a c t c t a c t g a g g a t c c t g a a a c t g t a g a t a a a a t t g t t c a a c t 450

```


tgttttacat gaaaagctgc aagatgctgt aggaccccct aaagtagatc 500
 ctactcagt taaaattaaa aaaatcaaca agacagaaac agacagctat 550
 ctaaaccatt gctgcggaac acgaagaagt aaaactctag gtcagagtct 600
 caggatcggt ggtgggacag aagtagaaga gggatgaatgg ccctggcagg 650
 ctacgtgca gtgggatggg agtcatcgct gtggagcaac cttaattaat 700
 gccacatggc ttgtgagtgc tgctcactgt ttacaacat ataagaacct 750
 tgccagatgg actgcttcct ttggagtaac aataaacct tcgaaaatga 800
 aacgggggtct ccggagaata attgtccatg aaaaatacaa acacccatca 850
 catgactatg atatttctct tgcagagctt tctagccctg ttccctacac 900
 aatgcagta catagagttt gtctccctga tgcattctat gagtttcaac 950
 caggatgatg gatgtttgtg acaggatttg gagcactgaa aaatgatggg 1000
 tacagtcaaa atcatcttcg acaagcacag gtgactctca tagacgctac 1050
 aacttgcaat gaacctcaag cttacaatga cgccataact cctagaatgt 1100
 tatgtgctgg ctcccttagaa ggaaaaacag atgcatgcca gggatgactct 1150
 ggaggaccac tggtagttc agatgctaga gatattctgg accttgctgg 1200
 aatagtgagc tggggagatg aatgtgcgaa acccaacaag cctgggtgtt 1250
 atactagagt tacggccttg cgggactgga ttacttcaaa aactgggtatc 1300
 taagagacaa aagcctcatg gaacagataa catttttttt tgttttttgg 1350
 gtgtggaggc cattttttaga gatacagaat tggagaagac ttgcaaaaca 1400
 gctagatttg actgatctca ataaactgtt tgcttgatgc atgtattttc 1450
 ttcccagctc tgttccgcac gtaagcatcc tgcttctgcc agatcaactc 1500
 tgtcatctgt gagcaatagt tgaaacttta tgtacataga gaaatagata 1550
 atacaatatt acattacagc ctgtattcat ttgttctcta gaagttttgt 1600
 cagaattttg acttggtgac ataaatttgt aatgcatata tacaatttga 1650
 agcactcctt ttcttcagtt cctcagctcc tctcatttca gcaaatatcc 1700
 attttcaagg tgcagaacaa ggagtgaag aaaatataag aagaaaaaaa 1750
 tcccctacat ttatttggca cagaaaagta ttaggtgttt ttcttagtgg 1800
 aatattagaa atgatcatat tcattatgaa aggtcaagca aagacagcag 1850
 aataccaatc acttcatcat ttaggaagta tgggaactaa gttaaggaag 1900

tccagaaaga agccaagata tatccttatt ttcatttcca aacaactact 1950
atgataaatg tgaagaagat tctgtttttt tgtgacctat aataattata 2000
caaacttcat gcaatgtact tggtctaagc aaattaaagc aaatatttat 2050
ttaacattgt tactgaggat gtcaacatat aacaataaaa tataaatcac 2100
cca 2103

<210> 106

<211> 423

<212> PRT

<213> Homo Sapien

<400> 106

Met	Met	Tyr	Arg	Pro	Asp	Val	Val	Arg	Ala	Arg	Lys	Arg	Val	Cys
1				5					10					15
Trp	Glu	Pro	Trp	Val	Ile	Gly	Leu	Val	Ile	Phe	Ile	Ser	Leu	Ile
				20					25					30
Val	Leu	Ala	Val	Cys	Ile	Gly	Leu	Thr	Val	His	Tyr	Val	Arg	Tyr
				35					40					45
Asn	Gln	Lys	Lys	Thr	Tyr	Asn	Tyr	Tyr	Ser	Thr	Leu	Ser	Phe	Thr
				50					55					60
Thr	Asp	Lys	Leu	Tyr	Ala	Glu	Phe	Gly	Arg	Glu	Ala	Ser	Asn	Asn
				65					70					75
Phe	Thr	Glu	Met	Ser	Gln	Arg	Leu	Glu	Ser	Met	Val	Lys	Asn	Ala
				80					85					90
Phe	Tyr	Lys	Ser	Pro	Leu	Arg	Glu	Glu	Phe	Val	Lys	Ser	Gln	Val
				95					100					105
Ile	Lys	Phe	Ser	Gln	Gln	Lys	His	Gly	Val	Leu	Ala	His	Met	Leu
				110					115					120
Leu	Ile	Cys	Arg	Phe	His	Ser	Thr	Glu	Asp	Pro	Glu	Thr	Val	Asp
				125					130					135
Lys	Ile	Val	Gln	Leu	Val	Leu	His	Glu	Lys	Leu	Gln	Asp	Ala	Val
				140					145					150
Gly	Pro	Pro	Lys	Val	Asp	Pro	His	Ser	Val	Lys	Ile	Lys	Lys	Ile
				155					160					165
Asn	Lys	Thr	Glu	Thr	Asp	Ser	Tyr	Leu	Asn	His	Cys	Cys	Gly	Thr
				170					175					180
Arg	Arg	Ser	Lys	Thr	Leu	Gly	Gln	Ser	Leu	Arg	Ile	Val	Gly	Gly
				185					190					195
Thr	Glu	Val	Glu	Glu	Gly	Glu	Trp	Pro	Trp	Gln	Ala	Ser	Leu	Gln

	200		205		210
Trp Asp Gly Ser	His Arg Cys Gly Ala	Thr Leu Ile Asn Ala	Thr		
	215		220		225
Trp Leu Val Ser	Ala Ala His Cys Phe	Thr Thr Tyr Lys Asn	Pro		
	230		235		240
Ala Arg Trp Thr	Ala Ser Phe Gly Val	Thr Ile Lys Pro Ser	Lys		
	245		250		255
Met Lys Arg Gly	Leu Arg Arg Ile Ile	Val His Glu Lys Tyr	Lys		
	260		265		270
His Pro Ser His	Asp Tyr Asp Ile Ser	Leu Ala Glu Leu Ser	Ser		
	275		280		285
Pro Val Pro Tyr	Thr Asn Ala Val His	Arg Val Cys Leu Pro	Asp		
	290		295		300
Ala Ser Tyr Glu	Phe Gln Pro Gly Asp	Val Met Phe Val Thr	Gly		
	305		310		315
Phe Gly Ala Leu	Lys Asn Asp Gly Tyr	Ser Gln Asn His Leu	Arg		
	320		325		330
Gln Ala Gln Val	Thr Leu Ile Asp Ala	Thr Thr Cys Asn Glu	Pro		
	335		340		345
Gln Ala Tyr Asn	Asp Ala Ile Thr Pro	Arg Met Leu Cys Ala	Gly		
	350		355		360
Ser Leu Glu Gly	Lys Thr Asp Ala Cys	Gln Gly Asp Ser Gly	Gly		
	365		370		375
Pro Leu Val Ser	Ser Asp Ala Arg Asp	Ile Trp Tyr Leu Ala	Gly		
	380		385		390
Ile Val Ser Trp	Gly Asp Glu Cys Ala	Lys Pro Asn Lys Pro	Gly		
	395		400		405
Val Tyr Thr Arg	Val Thr Ala Leu Arg	Asp Trp Ile Thr Ser	Lys		
	410		415		420

Thr Gly Ile

<210> 107

<211> 2397

<212> DNA

<213> Homo Sapien

<400> 107

agagaaagaa gcgtctccag ctgaagccaa tgcagccctc cggtctccg 50

cgaagaagtt ccctgccccg atgagcccc gccgtgcgtc cccgactatc 100

cccaggcggg cgtggggcac cgggcccagc gccgacgatc gctgccgttt 150
 tgcccttggg agtaggatgt ggtgaaagga tggggcttct cccttacggg 200
 gtcacaaatg gccagagaag attccgtgaa gtgtctgcgc tgcctgctct 250
 acgccctcaa tctgctcttt tggttaatgt ccatcagtgt gttggcagtt 300
 tctgcttgga tgagggacta cctaaataat gttctcactt taactgcaga 350
 aacgagggtg gaggaagcag tcattttgac ttactttcct gtggttcac 400
 cggtcacgat tgctgtttgc tgtttcctta tcattgtggg gatgttagga 450
 tattgtggaa cggtgaaaag aaatctgttg cttcttgcac ggtactttgg 500
 aagtttgctt gtcattttct gtgtagaact ggcttgtggc gtttgacat 550
 atgaacagga acttatgggt ccagtacaat ggtcagatat ggtcactttg 600
 aaagccagga tgacaaatta tggattacct agatatcggg ggcttactca 650
 tgcttggaat ttttttcaga gagagttaa gtgctgtgga gtagtatatt 700
 tctactgactg gttggaaatg acagagatgg actggcccc agattcctgc 750
 tgtgttagag aattcccagg atgttccaaa caggcccacc aggaagatct 800
 cagtgcctt tatcaagagg gttgtgggaa gaaaatgtat tcctttttga 850
 gaggaaccaa acaactgcag gtgctgaggt ttctgggaat ctccattggg 900
 gtgacacaaa tcctggccat gattctcacc attactctgc tctgggctct 950
 gtattatgat agaagggagc ctgggacaga ccaaagatg tccttgaaga 1000
 atgacaactc tcagcacctg tcatgtccct cagtagaact gttgaaacca 1050
 agcctgtcaa gaatctttga acacacatcc atggcaaaca gctttaatac 1100
 acactttgag atggaggagt tataaaaaga aatgtcacag aagaaaacca 1150
 caaacttggt ttattggact tgtgaatttt tgagtacata ctatgtgttt 1200
 cagaaatatg tagaaataaa aatgttgcca taaaataaca cctaagcata 1250
 tactattcta tgctttaaaa tgaggatgga aaagtttcat gtcataagtc 1300
 accacctgga caataattga tgcccttaaa atgctgaaga cagatgtcat 1350
 accactgtg tagcctgtgt atgactttta ctgaacacag ttatgttttg 1400
 aggcagcatg gtttgattag catttccgca tccatgcaaa cgagtcacat 1450
 atggtgggac tggagccata gtaaagggtg atttacttct accaactagt 1500
 atataaagta ctaattaaat gctaacatag gaagttagaa aataactaata 1550

acttttatta ctcagcgatc tattcttctg atgctaaata aattatatat 1600
cagaaaactt tcaatatggg tgactaccta aatgtgattt ttgctgggta 1650
ctaaaatatt cttaccactt aaaagagcaa gctaacacat tgtcttaagc 1700
tgatcaggga ttttttgtat ataagtctgt gttaaactctg tataattcag 1750
tcgatttcag ttctgataat gttaagaata accattatga aaaggaaaat 1800
ttgtcctgta tagcatcatt attttttagcc tttcctgtta ataaagcttt 1850
actattctgt cctgggctta tattacacat ataactgtta tttaaatact 1900
taaccactaa ttttgaaaat taccagtgtg atacatagga atcattattc 1950
agaatgtagt ctgggtcttta ggaagtatta ataagaaaat ttgcacataa 2000
cttagttgat tcagaaagga cttgtatgct gtttttctcc caaatgaaga 2050
ctctttttga cactaaacac tttttaaaaa gcttatcttt gccttctcca 2100
aacaagaagc aatagtctcc aagtcaatat aaattctaca gaaaatagtg 2150
ttctttttct ccagaaaaat gcttgtgaga atcattaaaa catgtgacaa 2200
tttagagatt ctttgtttta tttcactgat taatatactg tggcaaatta 2250
cacagattat taaatttttt tacaagagta tagtatattt atttgaaatg 2300
ggaaaagtgc attttactgt attttgtgta ttttgtttat ttctcagaat 2350
atggaaagaa aattaaaatg tgtcaataaa tattttctag agagtaa 2397

<210> 108

<211> 305

<212> PRT

<213> Homo Sapien

<400> 108

Met	Ala	Arg	Glu	Asp	Ser	Val	Lys	Cys	Leu	Arg	Cys	Leu	Leu	Tyr
1				5					10					15

Ala	Leu	Asn	Leu	Leu	Phe	Trp	Leu	Met	Ser	Ile	Ser	Val	Leu	Ala
			20						25					30

Val	Ser	Ala	Trp	Met	Arg	Asp	Tyr	Leu	Asn	Asn	Val	Leu	Thr	Leu
			35						40					45

Thr	Ala	Glu	Thr	Arg	Val	Glu	Glu	Ala	Val	Ile	Leu	Thr	Tyr	Phe
			50						55					60

Pro	Val	Val	His	Pro	Val	Met	Ile	Ala	Val	Cys	Cys	Phe	Leu	Ile
			65						70					75

Ile	Val	Gly	Met	Leu	Gly	Tyr	Cys	Gly	Thr	Val	Lys	Arg	Asn	Leu
			80						85					90

Leu	Leu	Leu	Ala	Trp	Tyr	Phe	Gly	Ser	Leu	Leu	Val	Ile	Phe	Cys	
				95					100					105	
Val	Glu	Leu	Ala	Cys	Gly	Val	Trp	Thr	Tyr	Glu	Gln	Glu	Leu	Met	
				110					115					120	
Val	Pro	Val	Gln	Trp	Ser	Asp	Met	Val	Thr	Leu	Lys	Ala	Arg	Met	
				125					130					135	
Thr	Asn	Tyr	Gly	Leu	Pro	Arg	Tyr	Arg	Trp	Leu	Thr	His	Ala	Trp	
				140					145					150	
Asn	Phe	Phe	Gln	Arg	Glu	Phe	Lys	Cys	Cys	Gly	Val	Val	Tyr	Phe	
				155					160					165	
Thr	Asp	Trp	Leu	Glu	Met	Thr	Glu	Met	Asp	Trp	Pro	Pro	Asp	Ser	
				170					175					180	
Cys	Cys	Val	Arg	Glu	Phe	Pro	Gly	Cys	Ser	Lys	Gln	Ala	His	Gln	
				185					190					195	
Glu	Asp	Leu	Ser	Asp	Leu	Tyr	Gln	Glu	Gly	Cys	Gly	Lys	Lys	Met	
				200					205					210	
Tyr	Ser	Phe	Leu	Arg	Gly	Thr	Lys	Gln	Leu	Gln	Val	Leu	Arg	Phe	
				215					220					225	
Leu	Gly	Ile	Ser	Ile	Gly	Val	Thr	Gln	Ile	Leu	Ala	Met	Ile	Leu	
				230					235					240	
Thr	Ile	Thr	Leu	Leu	Trp	Ala	Leu	Tyr	Tyr	Asp	Arg	Arg	Glu	Pro	
				245					250					255	
Gly	Thr	Asp	Gln	Met	Met	Ser	Leu	Lys	Asn	Asp	Asn	Ser	Gln	His	
				260					265					270	
Leu	Ser	Cys	Pro	Ser	Val	Glu	Leu	Leu	Lys	Pro	Ser	Leu	Ser	Arg	
				275					280					285	
Ile	Phe	Glu	His	Thr	Ser	Met	Ala	Asn	Ser	Phe	Asn	Thr	His	Phe	
				290					295					300	
Glu	Met	Glu	Glu	Leu											
				305											

<210> 109

<211> 2339

<212> DNA

<213> Homo Sapien

<400> 109

ccaaggccag agctgtggac accttatccc actcatcctc atcctcttcc 50

tctgataaag cccctaccag tgctgataaa gtctttctcg tgagagccta 100

gaggccttaa aaaaaaaagt gcttgaaaga gaaggggaca aaggaacacc 150

agtattaaga ggattttcca gtgtttctgg cagttggtcc agaaggatgc 200
 ctccattcct gcttctcacc tgctcttca tcacaggcac ctccgtgtca 250
 cccgtggccc tagatccttg ttctgcttac atcagcctga atgagccctg 300
 gaggaacact gaccaccagt tggatgagtc tcaaggctcct cctctatgtg 350
 acaaccatgt gaatggggag tgggtaccact tcacgggcat ggcgaggat 400
 gccatgccta ctttctgcat accagaaaac cactgtggaa cccacgcacc 450
 tgtctggctc aatggcagcc accccctaga aggcgacggc attgtgcaac 500
 gccaggcttg tgccagcttc aatgggaact gctgtctctg gaacaccacg 550
 gtggaagtca aggcttgccc tggaggctac tatgtgtatc gtctgaccaa 600
 gccagcgtc tgcttcacg tctactgtgg tcatttttat gacatctgcg 650
 acgaggactg ccatggcagc tgctcagata ccagcgagtg cacatgcgct 700
 ccaggaactg tgctaggccc tgacaggcag acatgctttg atgaaaatga 750
 atgtgagcaa aacaacggtg gctgcagtga gatctgtgtg aacctcaaaa 800
 actcctaccg ctgtgagtggt ggggttggcc gtgtgctaag aagtgatggc 850
 aagacttggtg aagacgttga aggatgccac aataacaatg gtggctgcag 900
 ccactcttgc cttggatctg agaaaggcta ccagtgtgaa tgtccccggg 950
 gcctggtgct gtctgaggat aaccacactt gccaagtccc tgtgttgtgc 1000
 aaatcaaatg ccattgaagt gaacatcccc agggagctgg ttggtggcct 1050
 ggagctcttc ctgaccaaca ctcctgccg aggagtgtcc aacggcaccc 1100
 atgtcaacat cctcttctct ctcaagacat gtggtacagt ggtcgatgtg 1150
 gtgaatgaca agattgtggc cagcaacctc gtgacaggtc tacccaagca 1200
 gaccccgggg agcagcgggg acttcatcat ccgaaccagc aagctgctga 1250
 tcccggtgac ctgcgagttt ccacgcctgt acaccatttc tgaaggatac 1300
 gttcccaacc ttcgaaactc cccactggaa atcatgagcc gaaatcatgg 1350
 gatcttccca ttactcttg agatcttcaa ggacaatgag tttgaagagc 1400
 cttaccggga agctctgccc accctcaagc ttcgtgactc cctctacttt 1450
 ggcatgagc ccgtggtgca cgtgagcggc ttggaaagct tgggtggagag 1500
 ctgctttgcc acccccacct ccaagatcga cgaggctcctg aaatactacc 1550
 tcatccggga tggctgtgtt tcagatgact cggtaaaagca gtacacatcc 1600

cgggatcacc tagcaaagca cttccaggtc cctgtcttca agtttgtggg 1650
 caaagaccac aaggaagtgt ttctgcactg ccgggttctt gtctgtggag 1700
 tgttggacga gcgttcccg cgtgcccagg gttgccaccg gcgaatgcgt 1750
 cgtggggcag gaggagagga ctcagccggt ctacagggcc agacgctaac 1800
 aggcggcccg atccgcatcg actgggagga ctagttcgta gccatacctc 1850
 gagtccctgc attggacggc tctgctcttt ggagcttctc cccccaccgc 1900
 cctctaagaa catctgccaa cagctgggtt cagacttcac actgtgagtt 1950
 cagactccca gcaccaactc actctgattc tgggtccattc agtgggcaca 2000
 ggtcacagca ctgctgaaca atgtggcctg ggtgggggtt catctttcta 2050
 gggttgaaaa ctaaactgtc caccagaaaa gacactcacc ccatttccct 2100
 catttctttc ctacacttaa atacctcgtg tatggtgcaa tcagaccaca 2150
 aaatcagaag ctgggtataa tatttcaagt tacaaaccct agaaaaatta 2200
 aacagttact gaaattatga cttaaatacc caatgactcc ttaaatatgt 2250
 aaattatagt tataccttga aatttcaatt caaatgcaga ctaattatag 2300
 ggaatttgga agtgtatcaa taaaacagta tataattttt 2339

<210> 110

<211> 545

<212> PRT

<213> Homo Sapien

<400> 110

Met	Pro	Pro	Phe	Leu	Leu	Leu	Thr	Cys	Leu	Phe	Ile	Thr	Gly	Thr
1				5					10					15
Ser	Val	Ser	Pro	Val	Ala	Leu	Asp	Pro	Cys	Ser	Ala	Tyr	Ile	Ser
				20					25					30
Leu	Asn	Glu	Pro	Trp	Arg	Asn	Thr	Asp	His	Gln	Leu	Asp	Glu	Ser
				35					40					45
Gln	Gly	Pro	Pro	Leu	Cys	Asp	Asn	His	Val	Asn	Gly	Glu	Trp	Tyr
				50					55					60
His	Phe	Thr	Gly	Met	Ala	Gly	Asp	Ala	Met	Pro	Thr	Phe	Cys	Ile
				65					70					75
Pro	Glu	Asn	His	Cys	Gly	Thr	His	Ala	Pro	Val	Trp	Leu	Asn	Gly
				80					85					90
Ser	His	Pro	Leu	Glu	Gly	Asp	Gly	Ile	Val	Gln	Arg	Gln	Ala	Cys
				95					100					105

Ala Ser Phe Asn Gly Asn Cys Cys Leu Trp Asn Thr Thr Val Glu	110	115	120
Val Lys Ala Cys Pro Gly Gly Tyr Tyr Val Tyr Arg Leu Thr Lys	125	130	135
Pro Ser Val Cys Phe His Val Tyr Cys Gly His Phe Tyr Asp Ile	140	145	150
Cys Asp Glu Asp Cys His Gly Ser Cys Ser Asp Thr Ser Glu Cys	155	160	165
Thr Cys Ala Pro Gly Thr Val Leu Gly Pro Asp Arg Gln Thr Cys	170	175	180
Phe Asp Glu Asn Glu Cys Glu Gln Asn Asn Gly Gly Cys Ser Glu	185	190	195
Ile Cys Val Asn Leu Lys Asn Ser Tyr Arg Cys Glu Cys Gly Val	200	205	210
Gly Arg Val Leu Arg Ser Asp Gly Lys Thr Cys Glu Asp Val Glu	215	220	225
Gly Cys His Asn Asn Asn Gly Gly Cys Ser His Ser Cys Leu Gly	230	235	240
Ser Glu Lys Gly Tyr Gln Cys Glu Cys Pro Arg Gly Leu Val Leu	245	250	255
Ser Glu Asp Asn His Thr Cys Gln Val Pro Val Leu Cys Lys Ser	260	265	270
Asn Ala Ile Glu Val Asn Ile Pro Arg Glu Leu Val Gly Gly Leu	275	280	285
Glu Leu Phe Leu Thr Asn Thr Ser Cys Arg Gly Val Ser Asn Gly	290	295	300
Thr His Val Asn Ile Leu Phe Ser Leu Lys Thr Cys Gly Thr Val	305	310	315
Val Asp Val Val Asn Asp Lys Ile Val Ala Ser Asn Leu Val Thr	320	325	330
Gly Leu Pro Lys Gln Thr Pro Gly Ser Ser Gly Asp Phe Ile Ile	335	340	345
Arg Thr Ser Lys Leu Leu Ile Pro Val Thr Cys Glu Phe Pro Arg	350	355	360
Leu Tyr Thr Ile Ser Glu Gly Tyr Val Pro Asn Leu Arg Asn Ser	365	370	375
Pro Leu Glu Ile Met Ser Arg Asn His Gly Ile Phe Pro Phe Thr	380	385	390

Leu	Glu	Ile	Phe	Lys	Asp	Asn	Glu	Phe	Glu	Glu	Pro	Tyr	Arg	Glu	
				395					400					405	
Ala	Leu	Pro	Thr	Leu	Lys	Leu	Arg	Asp	Ser	Leu	Tyr	Phe	Gly	Ile	
				410					415					420	
Glu	Pro	Val	Val	His	Val	Ser	Gly	Leu	Glu	Ser	Leu	Val	Glu	Ser	
				425					430					435	
Cys	Phe	Ala	Thr	Pro	Thr	Ser	Lys	Ile	Asp	Glu	Val	Leu	Lys	Tyr	
				440					445					450	
Tyr	Leu	Ile	Arg	Asp	Gly	Cys	Val	Ser	Asp	Asp	Ser	Val	Lys	Gln	
				455					460					465	
Tyr	Thr	Ser	Arg	Asp	His	Leu	Ala	Lys	His	Phe	Gln	Val	Pro	Val	
				470					475					480	
Phe	Lys	Phe	Val	Gly	Lys	Asp	His	Lys	Glu	Val	Phe	Leu	His	Cys	
				485					490					495	
Arg	Val	Leu	Val	Cys	Gly	Val	Leu	Asp	Glu	Arg	Ser	Arg	Cys	Ala	
				500					505					510	
Gln	Gly	Cys	His	Arg	Arg	Met	Arg	Arg	Gly	Ala	Gly	Gly	Glu	Asp	
				515					520					525	
Ser	Ala	Gly	Leu	Gln	Gly	Gln	Thr	Leu	Thr	Gly	Gly	Pro	Ile	Arg	
				530					535					540	
Ile	Asp	Trp	Glu	Asp											
				545											

<210> 111
 <211> 2063
 <212> DNA
 <213> Homo Sapien

<400> 111
 gagagaggca gcagcttgct cagcggacaa ggatgctggg cgtgaggac 50
 caaggcctgc cctgcactcg ggctcctcc agccagtgc gaccaggac 100
 ttctgacctg ctggccagcc aggacctgtg tggggaggcc ctctgctgc 150
 cttggggtga caatctcagc tccaggctac agggagaccg ggaggatcac 200
 agagccagca tggtacagga tcctgacagt gatcaacctc tgaacagcct 250
 cgatgtcaaa cccctgcgca aaccccgat ccccatggag accttcagaa 300
 aggtggggat ccccatcatc atagcactac tgagcctggc gagtatcatc 350
 attgtggttg tcctcatcaa ggtgattctg gataaatact acttcctctg 400
 cgggcagcct ctccacttca tcccaggaa gcagctgtgt gacggagagc 450

tggactgtcc cttgggggag gacgaggagc actgtgtcaa gagcttcccc 500
 gaagggcctg cagtggcagt ccgcctctcc aaggaccgat ccacactgca 550
 ggtgctggac tcggccacag ggaactgggt ctctgcctgt ttcgacaact 600
 tcacagaagc tctcgtgag acagcctgta ggcagatggg ctacagcaga 650
 gctgtggaga ttggcccaga ccaggatctg gatgttggtg aaatcacaga 700
 aaacagccag gagcttcgca tgcggaactc aagtgggccc tgtctctcag 750
 gctccctggg ctccctgcac tgtcttgctt gtgggaagag cctgaagacc 800
 ccccggtggg tgggtgggga ggaggcctct gtggattctt ggccttggca 850
 ggtcagcatc cagtacgaca aacagcacgt ctgtggaggg agcatcctgg 900
 accccactg ggtcctcagc gcagcccact gcttcaggaa acataccgat 950
 gtgttcaact ggaaggtgcg ggcaggctca gacaaactgg gcagcttccc 1000
 atccctgggt gtggccaaga tcatcatcat tgaattcaac cccatgtacc 1050
 ccaaagacaa tgacatcgcc ctcatgaagc tgcagttccc actcactttc 1100
 tcaggcacag tcaggcccat ctgtctgccc ttctttgatg aggagctcac 1150
 tccagccacc ccactctgga tcattggatg gggctttacg aagcagaatg 1200
 gagggaagat gtctgacata ctgctgcagg cgtcagtcca ggtcattgac 1250
 agcacacggt gcaatgcaga cgatgcgtac cagggggaag tcaccgagaa 1300
 gatgatgtgt gcaggcatcc cggaaggggg tgtggacacc tgccaggggtg 1350
 acagtgggtg gccctgatg taccaatctg accagtggca tgtgggtgggc 1400
 atcgttagct ggggctatgg ctgcgggggc ccgagcacc caggagtata 1450
 caccaaggtc tcagcctatc tcaactggat ctacaatgtc tggaaggctg 1500
 agctgtaatg ctgctgcccc tttgcagtgc tgggagccgc ttccttcctg 1550
 ccctgccac ctggggatcc cccaaagtca gacacagagc aagagtcccc 1600
 ttgggtacac ccctctgccc acagcctcag catttcttgg agcagcaaag 1650
 ggcctcaatt cctgtaagag accctcgcag cccagaggcg cccagaggaa 1700
 gtcagcagcc ctagctcggc cacacttggg gctcccagca tcccaggag 1750
 agacacagcc cactgaacaa ggtctcaggg gtattgctaa gccaagaagg 1800
 aactttccca cactactgaa tggaagcagg ctgtcttgta aaagcccaga 1850
 tcactgtggg ctggagagga gaaggaaagg gtctgcgcca gccctgtccg 1900

tcttcaccca tccccaagcc tactagagca agaaaccagt tgtaataataa 1950
aatgcactgc cctactgttg gtatgactac cgttacctac tgttgtcatt 2000
gttattacag ctatggccac tattattaaa gagctgtgta acatctctgg 2050
caaaaaaaaaaaa aaa 2063

<210> 112
<211> 432
<212> PRT
<213> Homo Sapien

<400> 112
Met Leu Gln Asp Pro Asp Ser Asp Gln Pro Leu Asn Ser Leu Asp
1 5 10 15
Val Lys Pro Leu Arg Lys Pro Arg Ile Pro Met Glu Thr Phe Arg
20 25 30
Lys Val Gly Ile Pro Ile Ile Ile Ala Leu Leu Ser Leu Ala Ser
35 40 45
Ile Ile Ile Val Val Val Leu Ile Lys Val Ile Leu Asp Lys Tyr
50 55 60
Tyr Phe Leu Cys Gly Gln Pro Leu His Phe Ile Pro Arg Lys Gln
65 70 75
Leu Cys Asp Gly Glu Leu Asp Cys Pro Leu Gly Glu Asp Glu Glu
80 85 90
His Cys Val Lys Ser Phe Pro Glu Gly Pro Ala Val Ala Val Arg
95 100 105
Leu Ser Lys Asp Arg Ser Thr Leu Gln Val Leu Asp Ser Ala Thr
110 115 120
Gly Asn Trp Phe Ser Ala Cys Phe Asp Asn Phe Thr Glu Ala Leu
125 130 135
Ala Glu Thr Ala Cys Arg Gln Met Gly Tyr Ser Arg Ala Val Glu
140 145 150
Ile Gly Pro Asp Gln Asp Leu Asp Val Val Glu Ile Thr Glu Asn
155 160 165
Ser Gln Glu Leu Arg Met Arg Asn Ser Ser Gly Pro Cys Leu Ser
170 175 180
Gly Ser Leu Val Ser Leu His Cys Leu Ala Cys Gly Lys Ser Leu
185 190 195
Lys Thr Pro Arg Val Val Gly Gly Glu Glu Ala Ser Val Asp Ser
200 205 210

Trp	Pro	Trp	Gln	Val	Ser	Ile	Gln	Tyr	Asp	Lys	Gln	His	Val	Cys
				215					220					225
Gly	Gly	Ser	Ile	Leu	Asp	Pro	His	Trp	Val	Leu	Thr	Ala	Ala	His
				230					235					240
Cys	Phe	Arg	Lys	His	Thr	Asp	Val	Phe	Asn	Trp	Lys	Val	Arg	Ala
				245					250					255
Gly	Ser	Asp	Lys	Leu	Gly	Ser	Phe	Pro	Ser	Leu	Ala	Val	Ala	Lys
				260					265					270
Ile	Ile	Ile	Ile	Glu	Phe	Asn	Pro	Met	Tyr	Pro	Lys	Asp	Asn	Asp
				275					280					285
Ile	Ala	Leu	Met	Lys	Leu	Gln	Phe	Pro	Leu	Thr	Phe	Ser	Gly	Thr
				290					295					300
Val	Arg	Pro	Ile	Cys	Leu	Pro	Phe	Phe	Asp	Glu	Glu	Leu	Thr	Pro
				305					310					315
Ala	Thr	Pro	Leu	Trp	Ile	Ile	Gly	Trp	Gly	Phe	Thr	Lys	Gln	Asn
				320					325					330
Gly	Gly	Lys	Met	Ser	Asp	Ile	Leu	Leu	Gln	Ala	Ser	Val	Gln	Val
				335					340					345
Ile	Asp	Ser	Thr	Arg	Cys	Asn	Ala	Asp	Asp	Ala	Tyr	Gln	Gly	Glu
				350					355					360
Val	Thr	Glu	Lys	Met	Met	Cys	Ala	Gly	Ile	Pro	Glu	Gly	Gly	Val
				365					370					375
Asp	Thr	Cys	Gln	Gly	Asp	Ser	Gly	Gly	Pro	Leu	Met	Tyr	Gln	Ser
				380					385					390
Asp	Gln	Trp	His	Val	Val	Gly	Ile	Val	Ser	Trp	Gly	Tyr	Gly	Cys
				395					400					405
Gly	Gly	Pro	Ser	Thr	Pro	Gly	Val	Tyr	Thr	Lys	Val	Ser	Ala	Tyr
				410					415					420
Leu	Asn	Trp	Ile	Tyr	Asn	Val	Trp	Lys	Ala	Glu	Leu			
				425					430					

<210> 113

<211> 1768

<212> DNA

<213> Homo Sapien

<400> 113

ggctggactg gaactcctgg tcccaagtga tccacccgcc tcagcctccc 50

aaggtgctgt gattataggt gtaagccacc gtgtctggcc tctgaacaac 100

tttttcagca actaaaaaag ccacaggagt tgaactgcta ggattctgac 150

tatgctgtgg tggctagtgc tctactcct acctacatta aaatctgttt 200
 tttgttctct tgtaactagc ctttaccttc ctaacacaga ggatctgtca 250
 ctgtggctct ggcccaaacc tgaccttcac tctggaacga gaacagaggt 300
 ttctaccac accgtcccct cgaagccggg gacagcctca ccttgctggc 350
 ctctcgctgg agcagtgcc tcaccaactg tctcacgtct ggaggcactg 400
 actcgggcag tgcaggtagc tgagcctctt ggtagctgcg gctttcaagg 450
 tgggccttgc cctggccgta gaagggattg acaagcccga agatttcata 500
 ggcgatggct cccactgccc aggcatcagc cttgctgtag tcaatcactg 550
 ccctggggcc aggacgggccc gtggacacct gctcagaagc agtgggtgag 600
 acatcacgct gcccgcccat ctaacctttt catgtcctgc acatcacctg 650
 atccatgggc taatctgaac tctgtcccaa ggaaccaga gcttgagtga 700
 gctgtggctc agaccagaa ggggtctgct tagaccacct ggtttatgtg 750
 acaggacttg cattctcctg gaacatgagg gaacgccgga ggaaagcaaa 800
 gtggcagggg aggaacttgt gccaaattat gggtcagaaa agatggaggt 850
 gttgggttat cacaaggcat cgagtctcct gcattcagtg gacatgtggg 900
 ggaagggtg ccgatggcgc atgacacact cgggactcac ctctggggcc 950
 atcagacagc cgtttccgcc ccgatccacg taccagctgc tgaagggcaa 1000
 ctgcaggccg atgctctcat cagccaggca gcagccaaaa tctgcatca 1050
 ccagccaggg gcagccgtct gggaaggagc aagcaaagt accatttctc 1100
 ctcccctcct tccctctgag aggcctcct atgtccctac taaagccacc 1150
 agcaagacat agctgacagg ggctaattgg tcagtgttgg ccaggaggt 1200
 cagcaaggcc tgagagctga tcagaagggc ctgctgtgcg aacacggaaa 1250
 tgctccagt aagcacaggc tgcaaaatcc ccaggcaaag gactgtgtgg 1300
 ctcaatttaa atcatgttct agtaattgga gctgtcccca agaccaaagg 1350
 agctagagct tggttcaaag gatctccaag ggccttata cccaggaga 1400
 ctttgatttg aatttgaaac cccaaatcca aacctaagaa ccagggtgat 1450
 taagaatcag ttattgccgg gtgtgggtggc ctgtaatgcc aacattttgg 1500
 gaggccgagg cgggtagatc acctgaggtc aggagttcaa gaccagcctg 1550
 gccaatgg tgaaaccct gtcttacta aaaatacaaa aaaactagcc 1600

aggcatggtg gtgtgtgcct gtatcccagc tactcgggag gctgagacag 1650
gagaattact tgaacctggg aggtgaagga ggctgagaca ggagaatcac 1700
ttcagcctga gcaacacagc gagactctgt ctcagaaaaa ataaaaaaag 1750
aattatgggtt atttgtaa 1768

<210> 114
<211> 109
<212> PRT
<213> Homo Sapien

<400> 114
Met Leu Trp Trp Leu Val Leu Leu Leu Leu Pro Thr Leu Lys Ser
1 5 10 15
Val Phe Cys Ser Leu Val Thr Ser Leu Tyr Leu Pro Asn Thr Glu
20 25 30
Asp Leu Ser Leu Trp Leu Trp Pro Lys Pro Asp Leu His Ser Gly
35 40 45
Thr Arg Thr Glu Val Ser Thr His Thr Val Pro Ser Lys Pro Gly
50 55 60
Thr Ala Ser Pro Cys Trp Pro Leu Ala Gly Ala Val Pro Ser Pro
65 70 75
Thr Val Ser Arg Leu Glu Ala Leu Thr Arg Ala Val Gln Val Ala
80 85 90
Glu Pro Leu Gly Ser Cys Gly Phe Gln Gly Gly Pro Cys Pro Gly
95 100 105
Arg Arg Arg Asp

<210> 115
<211> 1197
<212> DNA
<213> Homo Sapien

<400> 115
cagcagtggg ctctcagtc tctcaaagca aggaaagagt actgtgtgct 50
gagagaccat ggcaaagaat cctccagaga attgtgaaga ctgtcacatt 100
ctaaatgcag aagcttttaa atccaagaaa atatgtaaat cacttaagat 150
ttgtggactg gtgttttggt tcttgccct aactctaatt gtcctgtttt 200
gggggagcaa gcacttctgg ccggaggtac ccaaaaaagc ctatgacatg 250
gagcacactt tctacagcaa tggagagaag aagaagattt acatggaaat 300
tgatcctgtg accagaactg aaatattcag aagcggaaat ggactgatg 350

```

aaacattgga agtgcacgac tttaaaaacg gatacactgg catctacttc 400
gtgggtcttc aaaaatgttt tatcaaaact cagattaaag tgattcctga 450
atcttctgaa ccagaagagg aaatagatga gaatgaagaa attaccacaa 500
ctttctttga acagtcagtg atttgggtcc cagcagaaaa gcctattgaa 550
aaccgagatt ttcttaaaaa ttccaaaatt ctggagattt gtgataacgt 600
gaccatgtat tggatcaatc ccaactctaat atcagtttct gagttacaag 650
actttgagga ggagggagaa gatcttcact ttcttgccaa cgaaaaaaaa 700
gggattgaac aaaatgaaca gtgggtgggc cctcaagtga aagtagagaa 750
gaccgcgcac gccagacaag caagtgagga agaacttcca ataaatgact 800
atactgaaaa tggaatagaa tttgatccca tgctggatga gagaggttat 850
tgttgtatct actgccgtcg aggcaaccgc tattgccgcc gcgtctgtga 900
acctttacta ggctactacc catatccata ctgctacca ggaggacgag 950
tcatctgtcg tgtcatcatg ccttgtaact ggtgggtggc ccgcatgctg 1000
gggaggggtct aataggaggt ttgagctcaa atgcttaaac tgctggcaac 1050
atataataaa tgcattgctat tcaatgaatt tctgcctatg aggcattctg 1100
cccctggtag ccagctctcc agaattactt gtaggtaatt cctctcttca 1150
tgttctaata aacttctaca ttatcaccaa aaaaaaaaaa aaaaaaa 1197

```

<210> 116

<211> 317

<212> PRT

<213> Homo Sapien

<400> 116

```

Met Ala Lys Asn Pro Pro Glu Asn Cys Glu Asp Cys His Ile Leu
  1              5              10              15

Asn Ala Glu Ala Phe Lys Ser Lys Lys Ile Cys Lys Ser Leu Lys
              20              25              30

Ile Cys Gly Leu Val Phe Gly Ile Leu Ala Leu Thr Leu Ile Val
              35              40              45

Leu Phe Trp Gly Ser Lys His Phe Trp Pro Glu Val Pro Lys Lys
              50              55              60

Ala Tyr Asp Met Glu His Thr Phe Tyr Ser Asn Gly Glu Lys Lys
              65              70              75

Lys Ile Tyr Met Glu Ile Asp Pro Val Thr Arg Thr Glu Ile Phe

```


80					85					90				
Arg	Ser	Gly	Asn	Gly	Thr	Asp	Glu	Thr	Leu	Glu	Val	His	Asp	Phe
				95					100					105
Lys	Asn	Gly	Tyr	Thr	Gly	Ile	Tyr	Phe	Val	Gly	Leu	Gln	Lys	Cys
				110					115					120
Phe	Ile	Lys	Thr	Gln	Ile	Lys	Val	Ile	Pro	Glu	Phe	Ser	Glu	Pro
				125					130					135
Glu	Glu	Glu	Ile	Asp	Glu	Asn	Glu	Glu	Ile	Thr	Thr	Thr	Phe	Phe
				140					145					150
Glu	Gln	Ser	Val	Ile	Trp	Val	Pro	Ala	Glu	Lys	Pro	Ile	Glu	Asn
				155					160					165
Arg	Asp	Phe	Leu	Lys	Asn	Ser	Lys	Ile	Leu	Glu	Ile	Cys	Asp	Asn
				170					175					180
Val	Thr	Met	Tyr	Trp	Ile	Asn	Pro	Thr	Leu	Ile	Ser	Val	Ser	Glu
				185					190					195
Leu	Gln	Asp	Phe	Glu	Glu	Glu	Gly	Glu	Asp	Leu	His	Phe	Pro	Ala
				200					205					210
Asn	Glu	Lys	Lys	Gly	Ile	Glu	Gln	Asn	Glu	Gln	Trp	Val	Val	Pro
				215					220					225
Gln	Val	Lys	Val	Glu	Lys	Thr	Arg	His	Ala	Arg	Gln	Ala	Ser	Glu
				230					235					240
Glu	Glu	Leu	Pro	Ile	Asn	Asp	Tyr	Thr	Glu	Asn	Gly	Ile	Glu	Phe
				245					250					255
Asp	Pro	Met	Leu	Asp	Glu	Arg	Gly	Tyr	Cys	Cys	Ile	Tyr	Cys	Arg
				260					265					270
Arg	Gly	Asn	Arg	Tyr	Cys	Arg	Arg	Val	Cys	Glu	Pro	Leu	Leu	Gly
				275					280					285
Tyr	Tyr	Pro	Tyr	Pro	Tyr	Cys	Tyr	Gln	Gly	Gly	Arg	Val	Ile	Cys
				290					295					300
Arg	Val	Ile	Met	Pro	Cys	Asn	Trp	Trp	Val	Ala	Arg	Met	Leu	Gly
				305					310					315

Arg Val

<210> 117

<211> 2121

<212> DNA

<213> Homo Sapien

<400> 117

gagctcccct caggagcgcg ttagcttcac accttcggca gcaggagggc 50

ggcagcttct cgcaggcggc agggcgggcg gccaggatca tgtccaccac 100
 cacatgccaa gtggtggcgt tctcctgtc catcctgggg ctggccggct 150
 gcatcgcggc caccgggatg gacatgtgga gcaccagga cctgtacgac 200
 aaccccgta cctccgtgtt ccagtacgaa gggctctgga ggagctgcgt 250
 gaggcagagt tcaggcttca ccgaatgcag gccctatttc accatcctgg 300
 gacttccagc catgctgcag gcagtgcgag ccctgatgat cgtaggcatc 350
 gtctgggtg ccattggcct cctggtatcc atctttgccc tgaaatgcat 400
 ccgcattggc agcatggagg actctgcaa agccaacatg aactgacct 450
 ccgggatcat gttcattgtc tcaggctctt gtgcaattgc tggagtgtct 500
 gtgtttgcc aatgctgggt gactaacttc tggatgtcca cagctaacat 550
 gtacaccggc atgggtggga tggcgcagac tggtcagacc aggtacacat 600
 ttggtgcggc tctgttcgtg ggctgggtcg ctggaggcct cacactaatt 650
 gggggtgtga tgatgtgcat cgctgcccgg ggctggcac cagaagaaac 700
 caactacaaa gccgtttctt atcatgcctc aggccacagt gttgcctaca 750
 agcctggagg cttcaaggcc agcactggct ttgggtccaa caccaaaaac 800
 aagaagatat acgatggagg tgccgcaca gaggacgagg tacaatctta 850
 tccttccaag cagactatg tgtaatgtc taagacctct cagcacgggc 900
 ggaagaaact cccggagagc tcacccaaaa aacaaggaga tcccatctag 950
 atttcttctt gcttttgact cacagctgga agttagaaaa gcctcgattt 1000
 catctttgga gaggccaaat ggtcttagcc tcagtctctg tctctaaata 1050
 ttccaccata aaacagctga gttatttatg aattagaggc tatagctcac 1100
 attttcaatc ctctatttct ttttttaaata ataactttct actctgatga 1150
 gagaatgtgg ttttaatctc tctctcacat tttgatgatt tagacagact 1200
 cccctcttc ctctagtca ataaacccat tgatgatcta tttcccagct 1250
 tatccccaag aaaacttttg aaaggaaaga gtagaccxaa agatgttatt 1300
 ttctgctgtt tgaattttgt ctccccaccc ccaacttggc tagtaataaa 1350
 cacttactga agaagaagca ataagagaaa gatatttgta atctctccag 1400
 cccatgatct cggttttctt acactgtgat cttaaaagt accaaaccaa 1450

agtcattttc agtttgaggc aaccaaacct ttctactgct gttgacatct 1500
 tcttattaca gcaacacccat tctaggaggtt tcctgagctc tccactggag 1550
 tcctctttct gtcgcgggtc agaaattgtc cctagatgaa tgagaaaatt 1600
 atttttttta atttaagtcc taaatatagt taaaataaat aatgttttag 1650
 taaaatgata cactatctct gtgaaatagc ctcacccta catgtggata 1700
 gaaggaaatg aaaaaataat tgctttgaca ttgtctatat ggtactttgt 1750
 aaagtcatgc ttaagtacaa attccatgaa aagctcacac ctgtaatcct 1800
 agcactttgg gaggctgagg aggaaggatc acttgagccc agaagtcca 1850
 gactagcctg ggcaacatgg agaagccctg tctctacaaa atacagagag 1900
 aaaaaatcag ccagtcatgg tggcatacac ctgtagtccc agcattccgg 1950
 gaggctgagg tgggaggatc acttgagccc agggaggttg gggctgcagt 2000
 gagccatgat cacaccactg cactccagcc aggtgacata gcgagatcct 2050
 gtctaaaaaa ataaaaaata aataatggaa cacagcaagt cctaggaagt 2100
 aggttaaaac taattcttta a 2121

<210> 118

<211> 261

<212> PRT

<213> Homo Sapien

<400> 118

Met	Ser	Thr	Thr	Thr	Cys	Gln	Val	Val	Ala	Phe	Leu	Leu	Ser	Ile
1				5					10					15
Leu	Gly	Leu	Ala	Gly	Cys	Ile	Ala	Ala	Thr	Gly	Met	Asp	Met	Trp
				20					25					30
Ser	Thr	Gln	Asp	Leu	Tyr	Asp	Asn	Pro	Val	Thr	Ser	Val	Phe	Gln
				35					40					45
Tyr	Glu	Gly	Leu	Trp	Arg	Ser	Cys	Val	Arg	Gln	Ser	Ser	Gly	Phe
				50					55					60
Thr	Glu	Cys	Arg	Pro	Tyr	Phe	Thr	Ile	Leu	Gly	Leu	Pro	Ala	Met
				65					70					75
Leu	Gln	Ala	Val	Arg	Ala	Leu	Met	Ile	Val	Gly	Ile	Val	Leu	Gly
				80					85					90
Ala	Ile	Gly	Leu	Leu	Val	Ser	Ile	Phe	Ala	Leu	Lys	Cys	Ile	Arg
				95					100					105
Ile	Gly	Ser	Met	Glu	Asp	Ser	Ala	Lys	Ala	Asn	Met	Thr	Leu	Thr
				110					115					120

Ser Gly Ile Met	Phe Ile Val Ser Gly	Leu Cys Ala Ile Ala Gly	
125		130	135
Val Ser Val Phe	Ala Asn Met Leu Val	Thr Asn Phe Trp Met Ser	
140		145	150
Thr Ala Asn Met	Tyr Thr Gly Met Gly	Gly Met Val Gln Thr Val	
155		160	165
Gln Thr Arg Tyr	Thr Phe Gly Ala Ala	Leu Phe Val Gly Trp Val	
170		175	180
Ala Gly Gly Leu	Thr Leu Ile Gly Gly	Val Met Met Cys Ile Ala	
185		190	195
Cys Arg Gly Leu	Ala Pro Glu Glu Thr	Asn Tyr Lys Ala Val Ser	
200		205	210
Tyr His Ala Ser	Gly His Ser Val Ala	Tyr Lys Pro Gly Gly Phe	
215		220	225
Lys Ala Ser Thr	Gly Phe Gly Ser Asn	Thr Lys Asn Lys Lys Ile	
230		235	240
Tyr Asp Gly Gly	Ala Arg Thr Glu Asp	Glu Val Gln Ser Tyr Pro	
245		250	255
Ser Lys His Asp	Tyr Val		
260			

<210> 119

<211> 2010

<212> DNA

<213> Homo Sapien

<400> 119

```

ggaaaaactg ttctcttctg tggcacagag aaccctgctt caaagcagaa 50
gtagcagttc cggagtccag ctggctaaaa ctcattcccag aggataatgg 100
caacccatgc cttagaaatc gctgggctgt ttcttggtgg tgttggaatg 150
gtgggcacag tggctgtcac tgtcatgcct cagtggagag tgcggcctt 200
cattgaaaac aacatcgtgg tttttgaaaa cttctgggaa ggactgtgga 250
tgaattgcgt gaggcaggct aacatcagga tgcagtgcaa aatctatgat 300
tccctgctgg ctcttttctcc ggacctacag gcagccagag gactgatgtg 350
tgctgcttcc gtgatgtcct tcttggtttt catgatggcc atccttgga 400
tgaaatgcac caggtgcacg ggggacaatg agaaggtgaa ggctcacatt 450
ctgctgacgg ctggaatcat cttcatcatc acgggcatgg tgggtgctcat 500

```

ccctgtgagc tgggttgcca atgccatcat cagagatttc tataactcaa 550
tagtgaatgt tgcccaaaaa cgtgagcttg gagaagctct ctacttagga 600
tggaccacgg cactgggtgct gattgttgga ggagctctgt tctgctgcgt 650
tttttgttgc aacgaaaaga gcagtagcta cagatactcg ataccttccc 700
atcgcacaa ccaaaaaagt tatcacaccg gaaagaagtc accgagcgtc 750
tactccagaa gtcagtatgt gtagtttgt atgttttttt aactttacta 800
taaagccatg caaatgacaa aaatctatat tacttttctca aaatggaccc 850
caaagaaact ttgatttact gttcttaact gcctaactct aattacagga 900
actgtgcatc agctatttat gattctataa gctatttcag cagaatgaga 950
tattaaaccc aatgctttga ttgttctaga aagtatagta atttgttttc 1000
taaggtgggt caagcatcta ctctttttat catttacttc aaaatgacat 1050
tgctaaagac tgcattattt tactactgta atttctccac gacatagcat 1100
tatgtacata gatgagtgt acatttatat ctacataga gacatgctta 1150
tatggtttta tttaaaatga aatgccagtc cattacactg aataaataga 1200
actcaactat tgctttttcag ggaaatcatg gataggggtg aagaagggtta 1250
ctattaattg tttaaaaaca gcttagggat taatgtcctc catttataat 1300
gaagattaaa atgaaggctt taatcagcat tgtaaaggaa attgaatggc 1350
tttctgatat gctgtttttt agcctaggag ttagaaatcc taacttcttt 1400
atcctcttct cccagagggt ttttttttct tgtgtattaa attaacattt 1450
ttaaaacgca gatattttgt caaggggctt tgcattcaaa ctgcttttcc 1500
agggctatac tcagaagaaa gataaaagt tgatctaaga aaaagtgatg 1550
gttttaggaa agtgaaaata tttttgtttt tgtatttgaa gaagaatgat 1600
gcattttgac aagaaatcat atatgtatgg atatatttta ataagtattt 1650
gagtacagac tttgagggtt catcaatata aataaaagag cagaaaaata 1700
tgtcttggtt ttcatttgct taccaaaaaa acaacaacaa aaaaagttgt 1750
cctttgagaa cttcacctgc tcctatgtgg gtacctgagt caaaattgtc 1800
atttttgttc tgtgaaaaat aaatttcctt cttgtaccat ttctgttttag 1850
ttttactaaa atctgtaa atctgtatttt tctgtttatt ccaaatttga 1900
tgaaactgac aatccaattt gaaagtttgt gtcgacgtct gtctagctta 1950

aatgaatgtg ttctatttgc tttatacatt tatattaata aattgtacat 2000

ttttctaatt 2010

<210> 120

<211> 225

<212> PRT

<213> Homo Sapien

<400> 120

Met	Ala	Thr	His	Ala	Leu	Glu	Ile	Ala	Gly	Leu	Phe	Leu	Gly	Gly
1				5					10					15

Val	Gly	Met	Val	Gly	Thr	Val	Ala	Val	Thr	Val	Met	Pro	Gln	Trp
				20					25					30

Arg	Val	Ser	Ala	Phe	Ile	Glu	Asn	Asn	Ile	Val	Val	Phe	Glu	Asn
				35					40					45

Phe	Trp	Glu	Gly	Leu	Trp	Met	Asn	Cys	Val	Arg	Gln	Ala	Asn	Ile
				50					55					60

Arg	Met	Gln	Cys	Lys	Ile	Tyr	Asp	Ser	Leu	Leu	Ala	Leu	Ser	Pro
				65					70					75

Asp	Leu	Gln	Ala	Ala	Arg	Gly	Leu	Met	Cys	Ala	Ala	Ser	Val	Met
				80					85					90

Ser	Phe	Leu	Ala	Phe	Met	Met	Ala	Ile	Leu	Gly	Met	Lys	Cys	Thr
				95					100					105

Arg	Cys	Thr	Gly	Asp	Asn	Glu	Lys	Val	Lys	Ala	His	Ile	Leu	Leu
				110					115					120

Thr	Ala	Gly	Ile	Ile	Phe	Ile	Ile	Thr	Gly	Met	Val	Val	Leu	Ile
				125					130					135

Pro	Val	Ser	Trp	Val	Ala	Asn	Ala	Ile	Ile	Arg	Asp	Phe	Tyr	Asn
				140					145					150

Ser	Ile	Val	Asn	Val	Ala	Gln	Lys	Arg	Glu	Leu	Gly	Glu	Ala	Leu
				155					160					165

Tyr	Leu	Gly	Trp	Thr	Thr	Ala	Leu	Val	Leu	Ile	Val	Gly	Gly	Ala
				170					175					180

Leu	Phe	Cys	Cys	Val	Phe	Cys	Cys	Asn	Glu	Lys	Ser	Ser	Ser	Tyr
				185					190					195

Arg	Tyr	Ser	Ile	Pro	Ser	His	Arg	Thr	Thr	Gln	Lys	Ser	Tyr	His
				200					205					210

Thr	Gly	Lys	Lys	Ser	Pro	Ser	Val	Tyr	Ser	Arg	Ser	Gln	Tyr	Val
				215					220					225

<210> 121

<211> 1257
<212> DNA
<213> Homo Sapien

<400> 121
ggagagagggc gcgcgggtga aaggcgcatt gatgcagcct gcggcggcct 50
cggagcgcgg cggagccaga cgctgaccac gttcctctcc tcggtctcct 100
ccgectccag ctccgcgctg cccggcagcc gggagccatg cgaccccagg 150
gccccgccgc ctccccgcag cggctccgcg gcctcctgct gctcctgctg 200
ctgcagctgc ccgcgccgtc gagcgcctct gagatcccca aggggaagca 250
aaaggcgcag ctccggcaga gggaggtggt ggacctgtat aatggaatgt 300
gcttacaagg gccagcagga gtgcctggtc gagacgggag ccctggggcc 350
aatgtttatc cgggtacacc tgggatccca ggtcgggatg gattcaaagg 400
agaaaagggg gaatgtctga gggaaagctt tgaggagtcc tggacacca 450
actacaagca gtgttcattg agttcattga attatggcat agatcttggg 500
aaaattgcgg agtgtacatt taaaaagatg cgttcaaata gtgctctaag 550
agttttgttc agtggctcac ttcggctaaa atgcagaaat gcatgctgtc 600
agcgttggtg tttcacattc aatggagctg aatgttcagg acctcttccc 650
attgaagcta taatttattt ggaccaagga agccctgaaa tgaattcaac 700
aattaatatt catcgactt cttctgtgga aggactttgt gaaggaattg 750
gtgctggatt agtggatggt gctatctggg ttggcacttg ttcagattac 800
ccaaaaggag atgcttctac tggatggaat tcagtttctc gcatcattat 850
tgaagaacta ccaaaataaa tgctttaatt ttcatttgct acctcttttt 900
ttattatgcc ttggaatggt tcacttaaat gacattttta ataagtttat 950
gtatacatct gaatgaaaag caaagctaaa tatgtttaca gaccaaagt 1000
tgatttcaca ctgtttttta atctagcatt attcattttg cttcaatcaa 1050
aagtggtttc aatatttttt ttagttgggt agaatacttt cttcatagtc 1100
acattctctc aacctataat ttggaatatt gttgtggtct tttgtttttt 1150
ctcttagtat agcattttta aaaaaatata aaagctacca atctttgtac 1200
aatttgtaaa tgtaagaat tttttttata tctgttaaatt aaaaattatt 1250
tccaaca 1257

<210> 122

<211> 243
 <212> PRT
 <213> Homo Sapien

<400> 122

Met	Arg	Pro	Gln	Gly	Pro	Ala	Ala	Ser	Pro	Gln	Arg	Leu	Arg	Gly	1	5	10	15
Leu	Leu	Leu	Leu	Leu	Leu	Leu	Gln	Leu	Pro	Ala	Pro	Ser	Ser	Ala	20	25	30	
Ser	Glu	Ile	Pro	Lys	Gly	Lys	Gln	Lys	Ala	Gln	Leu	Arg	Gln	Arg	35	40	45	
Glu	Val	Val	Asp	Leu	Tyr	Asn	Gly	Met	Cys	Leu	Gln	Gly	Pro	Ala	50	55	60	
Gly	Val	Pro	Gly	Arg	Asp	Gly	Ser	Pro	Gly	Ala	Asn	Val	Ile	Pro	65	70	75	
Gly	Thr	Pro	Gly	Ile	Pro	Gly	Arg	Asp	Gly	Phe	Lys	Gly	Glu	Lys	80	85	90	
Gly	Glu	Cys	Leu	Arg	Glu	Ser	Phe	Glu	Glu	Ser	Trp	Thr	Pro	Asn	95	100	105	
Tyr	Lys	Gln	Cys	Ser	Trp	Ser	Ser	Leu	Asn	Tyr	Gly	Ile	Asp	Leu	110	115	120	
Gly	Lys	Ile	Ala	Glu	Cys	Thr	Phe	Thr	Lys	Met	Arg	Ser	Asn	Ser	125	130	135	
Ala	Leu	Arg	Val	Leu	Phe	Ser	Gly	Ser	Leu	Arg	Leu	Lys	Cys	Arg	140	145	150	
Asn	Ala	Cys	Cys	Gln	Arg	Trp	Tyr	Phe	Thr	Phe	Asn	Gly	Ala	Glu	155	160	165	
Cys	Ser	Gly	Pro	Leu	Pro	Ile	Glu	Ala	Ile	Ile	Tyr	Leu	Asp	Gln	170	175	180	
Gly	Ser	Pro	Glu	Met	Asn	Ser	Thr	Ile	Asn	Ile	His	Arg	Thr	Ser	185	190	195	
Ser	Val	Glu	Gly	Leu	Cys	Glu	Gly	Ile	Gly	Ala	Gly	Leu	Val	Asp	200	205	210	
Val	Ala	Ile	Trp	Val	Gly	Thr	Cys	Ser	Asp	Tyr	Pro	Lys	Gly	Asp	215	220	225	
Ala	Ser	Thr	Gly	Trp	Asn	Ser	Val	Ser	Arg	Ile	Ile	Ile	Glu	Glu	230	235	240	
Leu	Pro	Lys																

<210> 123

<211> 2379
<212> DNA
<213> Homo Sapien

<400> 123

```
gctgagcgtg tgcgcggtac ggggctctcc tgccttctgg gctccaacgc 50
agctctgtgg ctgaactggg tgctcatcac gggaactgct gggctatgga 100
atacagatgt ggcagctcag gtagcccaa attgcctgga agaatacatc 150
atgttttttcg ataagaagaa attgtaggat ccagtttttt ttttaaccgc 200
ccctcccca cccccaaaa aaactgtaaa gatgcaaaaa cgtaatatcc 250
atgaagatcc tattacctag gaagattttg atgttttgct gcgaatgcgg 300
tgttgggatt tatttgttct tggagtgttc tgcgtggctg gcaaagaata 350
atgttccaaa atcgggtccat ctcccaaggg gtccaatttt tcttctctggg 400
tgtcagcgag ccctgactca ctacagtga gctgacaggg gctgtcatgc 450
aactggcccc taagccaaag caaaagacct aaggacgacc tttgaacaat 500
acaaaggatg ggtttcaatg taattaggct actgagcgga tcagctgtag 550
cactggttat agccccact gtcttactga caatgctttc ttctgccgaa 600
cgaggatgcc ctaagggtg taggtgtgaa ggcaaatgg tatattgtga 650
atctcagaaa ttacaggaga taccctcaag tataatctgct ggttgcttag 700
gtttgtccct tcgctataac agccttcaaa aacttaagta taatcaattt 750
aaagggtca accagctcac ctggctatac cttgaccata accatatcag 800
caatattgac gaaaatgctt ttaatggaat acgcagactc aaagagctga 850
ttcttagttc caatagaatc tcctattttc ttaacaatac cttcagacct 900
gtgacaaaatt tacggaactt ggatctgtcc tataatcagc tgcattctct 950
gggatctgaa cagtttcggg gcttgcgga gctgctgagt ttacatttac 1000
ggtctaactc cctgagaacc atccctgtgc gaatattcca agactgccgc 1050
aacctggaac ttttggacct gggatataac cggatccgaa gtttagccag 1100
gaatgtcttt gctggcatga tcagactcaa agaacttcac ctggagcaca 1150
atcaattttc caagctcaac ctggcccttt ttccaagggtt ggtcagcctt 1200
cagaaccttt acttgcatg gaataaaatc agtgtcatag gacagaccat 1250
gtcctggacc tggagctcct tacaaaggct tgatttatca ggcaatgaga 1300
tcgaagcttt cagtggaccc agtgttttcc agtgtgtccc gaatctgcag 1350
```

cgctcaacc tggattccaa caagctcaca tttattgggc aagagatttt 1400
 ggattcttgg atatccctca atgacatcag tcttgctggg aatatatggg 1450
 aatgcagcag aaatatttgc tcccttgtaa actggctgaa aagttttaaa 1500
 ggtctaaggg agaatacaat tatctgtgcc agtcccaaag agctgcaagg 1550
 agtaaattgt atcgatgcag tgaagaacta cagcatctgt ggcaaaagta 1600
 ctacagagag gtttgatctg gccagggtgc tcccaaagcc gacgtttaag 1650
 cccaagctcc ccaggccgaa gcatgagagc aaacccctt tgcccccgac 1700
 ggtgggagcc acagagcccg gccagagac cgatgctgac gccgagcaca 1750
 tctctttcca taaaatcatc gcgggcagcg tggcgctttt cctgtccgtg 1800
 ctcgatcatc tgctgggtat ctacgtgtca tggaagcggg accctgcgag 1850
 catgaagcag ctgcagcagc gctccctcat gcgaaggcac aggaaaaaga 1900
 aaagacagtc cctaaagcaa atgactccca gcaccagga attttatgta 1950
 gattataaac ccaccaacac ggagaccagc gagatgctgc tgaatgggac 2000
 gggaccctgc acctataaca aatcgggtgc caggagtggt gaggtatgaa 2050
 ccattgtgat aaaaagagct cttaaaagct gggaaataag tggtgcttta 2100
 ttgaactctg gtgactatca agggaacgcg atgcccccc tccccttccc 2150
 tctccctctc actttgggtg caagatcctt ccttgctccg tttagtgc 2200
 tcataatact ggtcattttc ctctcatata taatcaaccc attgaaattt 2250
 aaataccaca atcaatgtga agcttgaact ccggtttaat ataataccta 2300
 ttgtataaga ccctttactg attccattaa tgtcgcattt gttttaagat 2350
 aaaacttctt tcataggtaa aaaaaaaaa 2379

<210> 124

<211> 513

<212> PRT

<213> Homo Sapien

<400> 124

Met	Gly	Phe	Asn	Val	Ile	Arg	Leu	Leu	Ser	Gly	Ser	Ala	Val	Ala
1				5					10					15
Leu	Val	Ile	Ala	Pro	Thr	Val	Leu	Leu	Thr	Met	Leu	Ser	Ser	Ala
				20					25					30
Glu	Arg	Gly	Cys	Pro	Lys	Gly	Cys	Arg	Cys	Glu	Gly	Lys	Met	Val
				35					40					45

Tyr	Cys	Glu	Ser	Gln	Lys	Leu	Gln	Glu	Ile	Pro	Ser	Ser	Ile	Ser	50	55	60
Ala	Gly	Cys	Leu	Gly	Leu	Ser	Leu	Arg	Tyr	Asn	Ser	Leu	Gln	Lys	65	70	75
Leu	Lys	Tyr	Asn	Gln	Phe	Lys	Gly	Leu	Asn	Gln	Leu	Thr	Trp	Leu	80	85	90
Tyr	Leu	Asp	His	Asn	His	Ile	Ser	Asn	Ile	Asp	Glu	Asn	Ala	Phe	95	100	105
Asn	Gly	Ile	Arg	Arg	Leu	Lys	Glu	Leu	Ile	Leu	Ser	Ser	Asn	Arg	110	115	120
Ile	Ser	Tyr	Phe	Leu	Asn	Asn	Thr	Phe	Arg	Pro	Val	Thr	Asn	Leu	125	130	135
Arg	Asn	Leu	Asp	Leu	Ser	Tyr	Asn	Gln	Leu	His	Ser	Leu	Gly	Ser	140	145	150
Glu	Gln	Phe	Arg	Gly	Leu	Arg	Lys	Leu	Leu	Ser	Leu	His	Leu	Arg	155	160	165
Ser	Asn	Ser	Leu	Arg	Thr	Ile	Pro	Val	Arg	Ile	Phe	Gln	Asp	Cys	170	175	180
Arg	Asn	Leu	Glu	Leu	Leu	Asp	Leu	Gly	Tyr	Asn	Arg	Ile	Arg	Ser	185	190	195
Leu	Ala	Arg	Asn	Val	Phe	Ala	Gly	Met	Ile	Arg	Leu	Lys	Glu	Leu	200	205	210
His	Leu	Glu	His	Asn	Gln	Phe	Ser	Lys	Leu	Asn	Leu	Ala	Leu	Phe	215	220	225
Pro	Arg	Leu	Val	Ser	Leu	Gln	Asn	Leu	Tyr	Leu	Gln	Trp	Asn	Lys	230	235	240
Ile	Ser	Val	Ile	Gly	Gln	Thr	Met	Ser	Trp	Thr	Trp	Ser	Ser	Leu	245	250	255
Gln	Arg	Leu	Asp	Leu	Ser	Gly	Asn	Glu	Ile	Glu	Ala	Phe	Ser	Gly	260	265	270
Pro	Ser	Val	Phe	Gln	Cys	Val	Pro	Asn	Leu	Gln	Arg	Leu	Asn	Leu	275	280	285
Asp	Ser	Asn	Lys	Leu	Thr	Phe	Ile	Gly	Gln	Glu	Ile	Leu	Asp	Ser	290	295	300
Trp	Ile	Ser	Leu	Asn	Asp	Ile	Ser	Leu	Ala	Gly	Asn	Ile	Trp	Glu	305	310	315
Cys	Ser	Arg	Asn	Ile	Cys	Ser	Leu	Val	Asn	Trp	Leu	Lys	Ser	Phe	320	325	330

Lys Gly Leu Arg	Glu Asn Thr Ile Ile	Cys Ala Ser Pro Lys Glu	
	335	340	345
Leu Gln Gly Val	Asn Val Ile Asp Ala Val	Lys Asn Tyr Ser Ile	
	350	355	360
Cys Gly Lys Ser	Thr Thr Glu Arg Phe	Asp Leu Ala Arg Ala Leu	
	365	370	375
Pro Lys Pro Thr	Phe Lys Pro Lys Leu	Pro Arg Pro Lys His Glu	
	380	385	390
Ser Lys Pro Pro	Leu Pro Pro Thr Val	Gly Ala Thr Glu Pro Gly	
	395	400	405
Pro Glu Thr Asp	Ala Asp Ala Glu His	Ile Ser Phe His Lys Ile	
	410	415	420
Ile Ala Gly Ser	Val Ala Leu Phe Leu	Ser Val Leu Val Ile Leu	
	425	430	435
Leu Val Ile Tyr	Val Ser Trp Lys Arg	Tyr Pro Ala Ser Met Lys	
	440	445	450
Gln Leu Gln Gln	Arg Ser Leu Met Arg	Arg His Arg Lys Lys Lys	
	455	460	465
Arg Gln Ser Leu	Lys Gln Met Thr Pro	Ser Thr Gln Glu Phe Tyr	
	470	475	480
Val Asp Tyr Lys	Pro Thr Asn Thr Glu	Thr Ser Glu Met Leu Leu	
	485	490	495
Asn Gly Thr Gly	Pro Cys Thr Tyr Asn	Lys Ser Gly Ser Arg Glu	
	500	505	510

Cys Glu Val

<210> 125

<211> 998

<212> DNA

<213> Homo Sapien

<400> 125

```

ccgttatcgt cttgcgctac tgctgaatgt ccgtcccgga ggaggaggag 50
aggcttttgc cgctgaccca gagatggccc cgagcgagca aattcctact 100
gtccggctgc gcggtaccg tggccgagct agcaaccttt cccctggatc 150
tcacaaaaac tcgactccaa atgcaaggag aagcagctct tgctcggttg 200
ggagacggtg caagagaatc tgccccctat aggggaatgg tgcgcacagc 250
cctagggatc attgaagagg aaggctttct aaagcttttg caaggagtga 300

```

caccgccat ttacagacac gtagtgtatt ctggaggtcg aatggtcaca 350
tatgaacatc tccgagaggt tgtgtttggc aaaagtgaag atgagcatta 400
tcccccttgg aatcagtc tggagggat gatggctggt gttattggcc 450
agtttttagc caatccaact gacctagtga aggttcagat gcaaattggaa 500
ggaaaaagga aactggaagg aaaaccattg cgatttcgtg gtgtacatca 550
tgcatttgca aaaatcttag ctgaaggagg aatacgaggg ctttgggcag 600
gctgggtacc caatatacaa agagcagcac tggatgaatat gggagattta 650
accacttatg atacagtga acactacttg gtattgaata caccacttga 700
ggacaatatc atgactcacg gtttatcaag tttatgttct ggactggtag 750
cttctattct gggaacacca gccgatgtca tcaaagcag aataatgaat 800
caaccacgag ataaacaagg aaggggactt ttgtataaat catcgactga 850
ctgcttgatt caggctgttc aaggtgaagg attcatgagt ctatataaag 900
gctttttacc atcttggtg agaatgaccc cttggtcaat ggtgttctgg 950
cttacttatg aaaaaatcag agagatgagt ggagtcagtc cattttaa 998

<210> 126

<211> 323

<212> PRT

<213> Homo Sapien

<400> 126

Met	Ser	Val	Pro	Glu	Glu	Glu	Glu	Arg	Leu	Leu	Pro	Leu	Thr	Gln
1				5					10					15
Arg	Trp	Pro	Arg	Ala	Ser	Lys	Phe	Leu	Leu	Ser	Gly	Cys	Ala	Ala
				20					25					30
Thr	Val	Ala	Glu	Leu	Ala	Thr	Phe	Pro	Leu	Asp	Leu	Thr	Lys	Thr
				35					40					45
Arg	Leu	Gln	Met	Gln	Gly	Glu	Ala	Ala	Leu	Ala	Arg	Leu	Gly	Asp
				50					55					60
Gly	Ala	Arg	Glu	Ser	Ala	Pro	Tyr	Arg	Gly	Met	Val	Arg	Thr	Ala
				65					70					75
Leu	Gly	Ile	Ile	Glu	Glu	Glu	Gly	Phe	Leu	Lys	Leu	Trp	Gln	Gly
				80					85					90
Val	Thr	Pro	Ala	Ile	Tyr	Arg	His	Val	Val	Tyr	Ser	Gly	Gly	Arg
				95					100					105
Met	Val	Thr	Tyr	Glu	His	Leu	Arg	Glu	Val	Val	Phe	Gly	Lys	Ser
				110					115					120

Glu	Asp	Glu	His	Tyr	Pro	Leu	Trp	Lys	Ser	Val	Ile	Gly	Gly	Met
				125					130					135
Met	Ala	Gly	Val	Ile	Gly	Gln	Phe	Leu	Ala	Asn	Pro	Thr	Asp	Leu
				140					145					150
Val	Lys	Val	Gln	Met	Gln	Met	Glu	Gly	Lys	Arg	Lys	Leu	Glu	Gly
				155					160					165
Lys	Pro	Leu	Arg	Phe	Arg	Gly	Val	His	His	Ala	Phe	Ala	Lys	Ile
				170					175					180
Leu	Ala	Glu	Gly	Gly	Ile	Arg	Gly	Leu	Trp	Ala	Gly	Trp	Val	Pro
				185					190					195
Asn	Ile	Gln	Arg	Ala	Ala	Leu	Val	Asn	Met	Gly	Asp	Leu	Thr	Thr
				200					205					210
Tyr	Asp	Thr	Val	Lys	His	Tyr	Leu	Val	Leu	Asn	Thr	Pro	Leu	Glu
				215					220					225
Asp	Asn	Ile	Met	Thr	His	Gly	Leu	Ser	Ser	Leu	Cys	Ser	Gly	Leu
				230					235					240
Val	Ala	Ser	Ile	Leu	Gly	Thr	Pro	Ala	Asp	Val	Ile	Lys	Ser	Arg
				245					250					255
Ile	Met	Asn	Gln	Pro	Arg	Asp	Lys	Gln	Gly	Arg	Gly	Leu	Leu	Tyr
				260					265					270
Lys	Ser	Ser	Thr	Asp	Cys	Leu	Ile	Gln	Ala	Val	Gln	Gly	Glu	Gly
				275					280					285
Phe	Met	Ser	Leu	Tyr	Lys	Gly	Phe	Leu	Pro	Ser	Trp	Leu	Arg	Met
				290					295					300
Thr	Pro	Trp	Ser	Met	Val	Phe	Trp	Leu	Thr	Tyr	Glu	Lys	Ile	Arg
				305					310					315
Glu	Met	Ser	Gly	Val	Ser	Pro	Phe							
				320										

<210> 127

<211> 1505

<212> DNA

<213> Homo Sapien

<400> 127

cgcgatcgg acccaagcag gtcggcggcg gcggcaggag agcggccggg 50

gtcagctcc tcgacccccg tgcggggcta gtccagcgag gcggacgggc 100

ggcgtggggc catggccagg cccggcatgg agcggtggcg cgaccggctg 150

gcgctggtga cgggggcctc ggggggcctc ggcgcggccg tggcccgggc 200

cctggtccag cagggactga aggtggtggg ctgcgcccgc actgtgggca 250

acatcgagga gctggctgct gaatgtaaga gtgcaggcta ccccgaggact 300
 ttgatccctt acagatgtga cctatcaaat gaagaggaca tcctctccat 350
 gttctcagct atccgtttctc agcacagcgg tgtagacatc tgcatacaaca 400
 atgctggctt ggcccgccct gacaccctgc tctcaggcag caccagtggg 450
 tggaaggaca tgttcaatgt gaacgtgctg gccctcagca tctgcacacg 500
 ggaagcctac cagtccatga aggagcggaa tgtggacgat gggcacatca 550
 ttaacatcaa tagcatgtct ggccaccgag tgttaccctt gtctgtgacc 600
 cacttctata gtgccaccaa gtatgccgtc actgcgctga cagagggact 650
 gaggcaagag cttcgggagg cccagaccca catccgagcc acgtgcatct 700
 ctccaggtgt ggtggagaca caattcgctt tcaaactcca cgacaaggac 750
 cctgagaagg cagctgccac ctatgagcaa atgaagtgtc tcaaaccgga 800
 ggatgtggcc gaggtgttta tctacgtcct cagcaccctc gcacacatcc 850
 agattggaga catccagatg aggccacgg agcaggtgac ctagtgactg 900
 tgggagctcc tccttccttc cccacccttc atggcttgcc tcctgcctct 950
 ggattttagg tgttgatttc tggatcacgg gataccactt cctgtccaca 1000
 ccccgaccag gggctagaaa atttgtttga gatttttata tcattctgtc 1050
 aaattgcttc agttgtaaat gtgaaaaatg ggctggggaa aggaggtggg 1100
 gtccctaatt gttttacttg ttaacttggt cttgtgcccc tgggcacttg 1150
 gcctttgtct gctctcagtg tcttcctttt gacatgggaa aggagttgtg 1200
 gccaaaatcc ccattctctt gcacctcaac gtctgtggct cagggctggg 1250
 gtggcagagg gaggccttca ccttatatct gtgttggtat ccagggctcc 1300
 agacttcctc ctctgcctgc cccactgcac cctctcccc ttatctatct 1350
 ccttctcggc tccccagccc agtcttggct tcttgcctcc tcctggggtc 1400
 atccctccac tctgactctg actatggcag cagaacacca gggcctggcc 1450
 cagtggattt catggtgatc attaaaaaag aaaaatcgca accaaaaaaa 1500
 aaaaa 1505

<210> 128
 <211> 260
 <212> PRT
 <213> Homo Sapien

<400> 128

Met	Ala	Arg	Pro	Gly	Met	Glu	Arg	Trp	Arg	Asp	Arg	Leu	Ala	Leu	
1				5					10					15	
Val	Thr	Gly	Ala	Ser	Gly	Gly	Ile	Gly	Ala	Ala	Val	Ala	Arg	Ala	
				20					25					30	
Leu	Val	Gln	Gln	Gly	Leu	Lys	Val	Val	Gly	Cys	Ala	Arg	Thr	Val	
				35					40					45	
Gly	Asn	Ile	Glu	Glu	Leu	Ala	Ala	Glu	Cys	Lys	Ser	Ala	Gly	Tyr	
				50					55					60	
Pro	Gly	Thr	Leu	Ile	Pro	Tyr	Arg	Cys	Asp	Leu	Ser	Asn	Glu	Glu	
				65					70					75	
Asp	Ile	Leu	Ser	Met	Phe	Ser	Ala	Ile	Arg	Ser	Gln	His	Ser	Gly	
				80					85					90	
Val	Asp	Ile	Cys	Ile	Asn	Asn	Ala	Gly	Leu	Ala	Arg	Pro	Asp	Thr	
				95					100					105	
Leu	Leu	Ser	Gly	Ser	Thr	Ser	Gly	Trp	Lys	Asp	Met	Phe	Asn	Val	
				110					115					120	
Asn	Val	Leu	Ala	Leu	Ser	Ile	Cys	Thr	Arg	Glu	Ala	Tyr	Gln	Ser	
				125					130					135	
Met	Lys	Glu	Arg	Asn	Val	Asp	Asp	Gly	His	Ile	Ile	Asn	Ile	Asn	
				140					145					150	
Ser	Met	Ser	Gly	His	Arg	Val	Leu	Pro	Leu	Ser	Val	Thr	His	Phe	
				155					160					165	
Tyr	Ser	Ala	Thr	Lys	Tyr	Ala	Val	Thr	Ala	Leu	Thr	Glu	Gly	Leu	
				170					175					180	
Arg	Gln	Glu	Leu	Arg	Glu	Ala	Gln	Thr	His	Ile	Arg	Ala	Thr	Cys	
				185					190					195	
Ile	Ser	Pro	Gly	Val	Val	Glu	Thr	Gln	Phe	Ala	Phe	Lys	Leu	His	
				200					205					210	
Asp	Lys	Asp	Pro	Glu	Lys	Ala	Ala	Ala	Thr	Tyr	Glu	Gln	Met	Lys	
				215					220					225	
Cys	Leu	Lys	Pro	Glu	Asp	Val	Ala	Glu	Ala	Val	Ile	Tyr	Val	Leu	
				230					235					240	
Ser	Thr	Pro	Ala	His	Ile	Gln	Ile	Gly	Asp	Ile	Gln	Met	Arg	Pro	
				245					250					255	
Thr	Glu	Gln	Val	Thr											
				260											

<210> 129

<211> 1177

<212> DNA

<213> Homo Sapien

<400> 129

aactttctaca tgggcctcct gctgctggtg ctcttcctca gcctcctgcc 50
ggtggcctac accatcatgt ccctcccacc ctcccttgac tgcgggccgt 100
tcaggtgcag agtctcagtt gcccgggagc acctcccctc ccgaggcagt 150
ctgctcagag ggctcggcc cagaattcca gttctggttt catgccagcc 200
tgtaaaaggc catggaactt tgggtgaatc accgatgcca ttttaagagg 250
ttttctgcca ggatggaaat gttaggctgt tctgtgtctg cgctgttcat 300
ttcagtagcc accagccacc tgtggccgtt gagtgcctga aatgaggaac 350
tgagaaaatt aatttctcat gtatttttct catttattta ttaattttta 400
actgatagtt gtacatattt gggggtacat gtgatatttg gatacatgta 450
tacaatatat aatgatcaaa tcagggtaac tgggatatcc atcacatcaa 500
acatttattt tttattcttt ttagacagag tctcactctg tcaccaggc 550
tgagagtgcag tgggtgccatc tcagcttact gcaacctctg cctgccaggt 600
tcaagcgatt ctcatgcctc cacctcccaa gtagctggga ctacaggcat 650
gcaccacaat gcccaactaa tttttgtatt tttagtagag acgggggttt 700
gccatgttgc ccaggctggc cttgaactcc tggcctcaaa caatccactt 750
gcctcggcct cccaaagtgt tatgattaca ggcgtgagcc accgtgcctg 800
gcctaaacat ttatcttttc tttgtgttgg gaactttgaa attatacaat 850
gaattattgt taactgtcat ctccctgctg tgctatggaa cactgggact 900
tcttcctctc atctaactgt atatttgtac cagttaacca accgtacttc 950
atccccactc ctctctatcc ttcccaacct ctgatcacct cattctactc 1000
tctacctcca tgagatccac ttttttagct cccacatgtg agtaagaaaa 1050
tgcaatattt gtctttctgt gcctggctta tttcacttaa cataatgact 1100
tcctgttcca tccatgttgc tgcaaagac aggatttcgt tcttaatttc 1150
aattaaaata accacacatg gcaaaaa 1177

<210> 130

<211> 111

<212> PRT

<213> Homo Sapien

<400> 130

Met Gly Leu Leu Leu Leu Val Leu Phe Leu Ser Leu Leu Pro Val

1	5	10	15
Ala Tyr Thr Ile Met Ser Leu Pro Pro Ser Phe Asp Cys Gly Pro	20	25	30
Phe Arg Cys Arg Val Ser Val Ala Arg Glu His Leu Pro Ser Arg	35	40	45
Gly Ser Leu Leu Arg Gly Pro Arg Pro Arg Ile Pro Val Leu Val	50	55	60
Ser Cys Gln Pro Val Lys Gly His Gly Thr Leu Gly Glu Ser Pro	65	70	75
Met Pro Phe Lys Arg Val Phe Cys Gln Asp Gly Asn Val Arg Ser	80	85	90
Phe Cys Val Cys Ala Val His Phe Ser Ser His Gln Pro Pro Val	95	100	105
Ala Val Glu Cys Leu Lys	110		

<210> 131
 <211> 2061
 <212> DNA
 <213> Homo Sapien

<400> 131
 ttctgaagta acggaagcta ccttgtataa agacctcaac actgctgacc 50
 atgatcagcg cagcctggag catcttcctc atcgggacta aaattgggct 100
 gttccttcaa gtagcacctc tatcagttat ggctaaatcc tgtccatctg 150
 tgtgtcgctg cgatgcgggt ttcatttact gtaatgatcg ctttctgaca 200
 tccattccaa caggaatacc agaggatgct acaactctct accttcagaa 250
 caaccaaata aataatgctg ggattccttc agatttgaaa aacttgctga 300
 aagtagaaaag aatataccta taccacaaca gtttagatga atttcctacc 350
 aacctcccaa agtatgtaaa agagttacat ttgcaagaaa ataacataag 400
 gactatcact tatgattcac tttcaaaaat tccctatctg gaagaattac 450
 atttagatga caactctgtc tctgcagtta gcatagaaga gggagcattc 500
 cgagacagca actatctccg actgcttttc ctgtcccgta atcaccttag 550
 cacaattccc tgggggttgc ccaggactat agaagaacta cgcttggatg 600
 ataatcgcat atccactatt tcatcaccat ctcttcaagg tctcactagt 650
 ctaaaacgcc tggttctaga tggaaacctg ttgaacaatc atgggttagg 700

tgacaaagtt ttcttcaacc tagttaatth gacagagctg tccctgggtgc 750
 ggaattccct gactgctgca ccagtaaacc ttccaggcac aaacctgagg 800
 aagctttatc ttcaagataa ccacatcaat cgggtgcccc caaatgcttt 850
 ttcttatcta aggcagctct atcgactgga tatgtccaat aataaccta 900
 gtaatttacc tcagggtatc tttgatgatt tggacaatat aacacaactg 950
 attcttcgca acaatccctg gtattgcggg tgcaagatga aatgggtacg 1000
 tgactgggta caatcactac ctgtgaaggt caacgtgcgt gggctcatgt 1050
 gccaaagcccc agaaaagggt cgtgggatgg ctattaagga tctcaatgca 1100
 gaactgtttg attgtaagga cagtgggatt gtaagcacca ttcagataac 1150
 cactgcaata cccaacacag tgtatcctgc ccaaggacag tggccagctc 1200
 cagtgaccaa acagccagat attaagaacc ccaagctcac taaggatcaa 1250
 caaaccacag ggagtccctc aagaaaaaca attacaatta ctgtgaagtc 1300
 tgtcacctct gataccattc atatctcttg gaaacttgct ctacctatga 1350
 ctgctttgag actcagctgg cttaaactgg gccatagccc ggcatttgga 1400
 tctataacag aaacaattgt aacaggggaa cgcagtgagt acttggtcac 1450
 agccctggag cctgattcac cctataaagt atgcatgggt cccatggaaa 1500
 ccagcaacct ctacctatth gatgaaactc ctgtttgtat tgagactgaa 1550
 actgcacccc ttcgaatgta caaccctaca accaccctca atcgagagca 1600
 agagaaagaa ccttacaaaa accccaatth acctttgggt gccatcattg 1650
 gtggggctgt ggccctgggt accattgccc ttcttgctth agtgtgttg 1700
 tatgttcata ggaatggatc gctcttctca aggaactgtg catatagcaa 1750
 agggaggaga agaaaggatg actatgcaga agctggcact aagaaggaca 1800
 actctatcct ggaaatcagg gaaacttctt ttcagatgtt accaataagc 1850
 aatgaacca tctcgaagga ggagtttgta atacacacca tatttcctcc 1900
 taatggaatg aatctgtaca aaaacaatca cagtgaaagc agtagtaacc 1950
 gaagctacag agacagtggg attccagact cagatcactc acactcatga 2000
 tgctgaagga ctcacagcag acttggtgtt tgggtttttt aaacctaagg 2050
 gaggtgatgg t 2061

<210> 132

<211> 649
 <212> PRT
 <213> Homo Sapien

<400> 132

Met	Ile	Ser	Ala	Ala	Trp	Ser	Ile	Phe	Leu	Ile	Gly	Thr	Lys	Ile	
1				5					10					15	
Gly	Leu	Phe	Leu	Gln	Val	Ala	Pro	Leu	Ser	Val	Met	Ala	Lys	Ser	
				20					25					30	
Cys	Pro	Ser	Val	Cys	Arg	Cys	Asp	Ala	Gly	Phe	Ile	Tyr	Cys	Asn	
				35					40					45	
Asp	Arg	Phe	Leu	Thr	Ser	Ile	Pro	Thr	Gly	Ile	Pro	Glu	Asp	Ala	
				50					55					60	
Thr	Thr	Leu	Tyr	Leu	Gln	Asn	Asn	Gln	Ile	Asn	Asn	Ala	Gly	Ile	
				65					70					75	
Pro	Ser	Asp	Leu	Lys	Asn	Leu	Leu	Lys	Val	Glu	Arg	Ile	Tyr	Leu	
				80					85					90	
Tyr	His	Asn	Ser	Leu	Asp	Glu	Phe	Pro	Thr	Asn	Leu	Pro	Lys	Tyr	
				95					100					105	
Val	Lys	Glu	Leu	His	Leu	Gln	Glu	Asn	Asn	Ile	Arg	Thr	Ile	Thr	
				110					115					120	
Tyr	Asp	Ser	Leu	Ser	Lys	Ile	Pro	Tyr	Leu	Glu	Glu	Leu	His	Leu	
				125					130					135	
Asp	Asp	Asn	Ser	Val	Ser	Ala	Val	Ser	Ile	Glu	Glu	Gly	Ala	Phe	
				140					145					150	
Arg	Asp	Ser	Asn	Tyr	Leu	Arg	Leu	Leu	Phe	Leu	Ser	Arg	Asn	His	
				155					160					165	
Leu	Ser	Thr	Ile	Pro	Trp	Gly	Leu	Pro	Arg	Thr	Ile	Glu	Glu	Leu	
				170					175					180	
Arg	Leu	Asp	Asp	Asn	Arg	Ile	Ser	Thr	Ile	Ser	Ser	Pro	Ser	Leu	
				185					190					195	
Gln	Gly	Leu	Thr	Ser	Leu	Lys	Arg	Leu	Val	Leu	Asp	Gly	Asn	Leu	
				200					205					210	
Leu	Asn	Asn	His	Gly	Leu	Gly	Asp	Lys	Val	Phe	Phe	Asn	Leu	Val	
				215					220					225	
Asn	Leu	Thr	Glu	Leu	Ser	Leu	Val	Arg	Asn	Ser	Leu	Thr	Ala	Ala	
				230					235					240	
Pro	Val	Asn	Leu	Pro	Gly	Thr	Asn	Leu	Arg	Lys	Leu	Tyr	Leu	Gln	
				245					250					255	
Asp	Asn	His	Ile	Asn	Arg	Val	Pro	Pro	Asn	Ala	Phe	Ser	Tyr	Leu	

				260						265					270
Arg	Gln	Leu	Tyr	Arg	Leu	Asp	Met	Ser	Asn	Asn	Asn	Leu	Ser	Asn	
				275					280					285	
Leu	Pro	Gln	Gly	Ile	Phe	Asp	Asp	Leu	Asp	Asn	Ile	Thr	Gln	Leu	
				290					295					300	
Ile	Leu	Arg	Asn	Asn	Pro	Trp	Tyr	Cys	Gly	Cys	Lys	Met	Lys	Trp	
				305					310					315	
Val	Arg	Asp	Trp	Leu	Gln	Ser	Leu	Pro	Val	Lys	Val	Asn	Val	Arg	
				320					325					330	
Gly	Leu	Met	Cys	Gln	Ala	Pro	Glu	Lys	Val	Arg	Gly	Met	Ala	Ile	
				335					340					345	
Lys	Asp	Leu	Asn	Ala	Glu	Leu	Phe	Asp	Cys	Lys	Asp	Ser	Gly	Ile	
				350					355					360	
Val	Ser	Thr	Ile	Gln	Ile	Thr	Thr	Ala	Ile	Pro	Asn	Thr	Val	Tyr	
				365					370					375	
Pro	Ala	Gln	Gly	Gln	Trp	Pro	Ala	Pro	Val	Thr	Lys	Gln	Pro	Asp	
				380					385					390	
Ile	Lys	Asn	Pro	Lys	Leu	Thr	Lys	Asp	Gln	Gln	Thr	Thr	Gly	Ser	
				395					400					405	
Pro	Ser	Arg	Lys	Thr	Ile	Thr	Ile	Thr	Val	Lys	Ser	Val	Thr	Ser	
				410					415					420	
Asp	Thr	Ile	His	Ile	Ser	Trp	Lys	Leu	Ala	Leu	Pro	Met	Thr	Ala	
				425					430					435	
Leu	Arg	Leu	Ser	Trp	Leu	Lys	Leu	Gly	His	Ser	Pro	Ala	Phe	Gly	
				440					445					450	
Ser	Ile	Thr	Glu	Thr	Ile	Val	Thr	Gly	Glu	Arg	Ser	Glu	Tyr	Leu	
				455					460					465	
Val	Thr	Ala	Leu	Glu	Pro	Asp	Ser	Pro	Tyr	Lys	Val	Cys	Met	Val	
				470					475					480	
Pro	Met	Glu	Thr	Ser	Asn	Leu	Tyr	Leu	Phe	Asp	Glu	Thr	Pro	Val	
				485					490					495	
Cys	Ile	Glu	Thr	Glu	Thr	Ala	Pro	Leu	Arg	Met	Tyr	Asn	Pro	Thr	
				500					505					510	
Thr	Thr	Leu	Asn	Arg	Glu	Gln	Glu	Lys	Glu	Pro	Tyr	Lys	Asn	Pro	
				515					520					525	
Asn	Leu	Pro	Leu	Ala	Ala	Ile	Ile	Gly	Gly	Ala	Val	Ala	Leu	Val	
				530					535					540	
Thr	Ile	Ala	Leu	Leu	Ala	Leu	Val	Cys	Trp	Tyr	Val	His	Arg	Asn	

	545		550		555
Gly Ser Leu Phe	Ser Arg Asn Cys Ala	Tyr Ser Lys Gly Arg Arg			
	560	565	570		
Arg Lys Asp Asp	Tyr Ala Glu Ala Gly	Thr Lys Lys Asp Asn Ser			
	575	580	585		
Ile Leu Glu Ile	Arg Glu Thr Ser Phe	Gln Met Leu Pro Ile Ser			
	590	595	600		
Asn Glu Pro Ile	Ser Lys Glu Glu Phe	Val Ile His Thr Ile Phe			
	605	610	615		
Pro Pro Asn Gly	Met Asn Leu Tyr Lys	Asn Asn His Ser Glu Ser			
	620	625	630		
Ser Ser Asn Arg	Ser Tyr Arg Asp Ser	Gly Ile Pro Asp Ser Asp			
	635	640	645		

His Ser His Ser

<210> 133

<211> 1882

<212> DNA

<213> Homo Sapien

<400> 133

```

ccgtcatccc cctgcagcca cccttcccag agtcctttgc ccaggccacc 50
ccaggcttct tggcagccct gccggggccac ttgtcttcat gtctgccagg 100
gggaggtggg aaggaggtgg gaggagggcg tgcagaggca gtctgggctt 150
ggccagagct caggggtgctg agcgtgtgac cagcagtgag cagaggccgg 200
ccatggccag cctggggctg ctgctcctgc tcttactgac agcactgcca 250
ccgctgtggt cctcctcact gcctgggctg gacactgctg aaagtaaagc 300
caccattgca gacctgatcc tgtctgcgct ggagagagcc accgtcttcc 350
tagaacagag gctgcctgaa atcaacctgg atggcatggt ggggggtccga 400
gtgctggaag agcagctaaa aagtgtccgg gagaagtggg cccaggagcc 450
cctgctgcag ccgctgagcc tgcgcgtggg gatgctgggg gagaagctgg 500
aggctgcat ccagagatcc ctccactacc tcaagctgag tgatcccaag 550
tacctaagag agttccagct gaccctccag cccggggtttt ggaagctccc 600
acatgcctgg atccacactg atgcctcctt ggtgtacccc acgttcgggc 650
cccaggactc attctcagag gagagaagtg acgtgtgcct ggtgcagctg 700
ctgggaaccg ggacggacag cagcgagccc tgcggcctct cagacctctg 750

```

caggagcctc atgaccaagc ccggctgctc aggctactgc ctgtcccacc 800
aactgctctt cttcctctgg gccagaatga ggggatgcac acagggacca 850
ctccaacaga gccaggacta tatcaacctc ttctgcgcca acatgatgga 900
cttgaaccgc agagctgagg ccatcggata cgcctaccct acccgggaca 950
tcttcatgga aaacatcatg ttctgtggaa tgggcggtt ctccgacttc 1000
tacaagctcc ggtggctgga ggccattctc agctggcaga aacagcagga 1050
aggatgcttc ggggagcctg atgctgaaga tgaagaatta tctaaagcta 1100
ttcaatatca gcagcatttt tcgaggagag tgaagaggcg agaaaaacaa 1150
tttccagatt ctgctctgtg tgctcaggct ggagtacagt ggcgcaatct 1200
cggctcactg caacctttgc ctctgggtt caagcaattc tcttgctca 1250
tcctcccag tagctgggac tacaggagcg tgccaccata cctggctaata 1300
ttttatattt ttttagtaga gacagggtt catcatgttg ctcatgctgg 1350
tctcgaactc ctgatctcaa gagatccgcc cacctcaggc tcccaaagt 1400
tggtattata ggtgtgagcc accgtgtctg gctgaaaagc actttcaaag 1450
agactgtgtt gaataaagg ccaaggttct tgccaccag cactcatggg 1500
ggctctctcc cctagatggc tgctctccc acaacacagc cacagcagt 1550
gcagccctgg gtggcttcct atacatcctg gcagaatacc cccagcaaa 1600
cagagagcca caccatcca caccgccacc accaagcagc cgctgagacg 1650
gacggttcca tgccagctgc ctggaggagg aacagacccc tttagtctc 1700
atcccttaga tcctggaggg cacggatcac atcctgggaa gaaggcatct 1750
ggaggataag caaagccacc ccgacacca atcttgaag ccctgagtag 1800
gcagggccag ggtaggtggg ggccgggagg gaccaggtg tgaacggatg 1850
aataaagttc aactgcaact gaaaaaaaaa aa 1882

<210> 134

<211> 440

<212> PRT

<213> Homo Sapien

<400> 134

Met	Ser	Ala	Arg	Gly	Arg	Trp	Glu	Gly	Gly	Gly	Arg	Arg	Ala	Cys
1				5				10						15

Arg	Gly	Ser	Leu	Gly	Leu	Ala	Arg	Ala	Gln	Gly	Ala	Glu	Arg	Val
				20					25					30

Thr	Ser	Ser	Glu	Gln	Arg	Pro	Ala	Met	Ala	Ser	Leu	Gly	Leu	Leu	35	40	45
Leu	Leu	Leu	Leu	Leu	Thr	Ala	Leu	Pro	Pro	Leu	Trp	Ser	Ser	Ser	50	55	60
Leu	Pro	Gly	Leu	Asp	Thr	Ala	Glu	Ser	Lys	Ala	Thr	Ile	Ala	Asp	65	70	75
Leu	Ile	Leu	Ser	Ala	Leu	Glu	Arg	Ala	Thr	Val	Phe	Leu	Glu	Gln	80	85	90
Arg	Leu	Pro	Glu	Ile	Asn	Leu	Asp	Gly	Met	Val	Gly	Val	Arg	Val	95	100	105
Leu	Glu	Glu	Gln	Leu	Lys	Ser	Val	Arg	Glu	Lys	Trp	Ala	Gln	Glu	110	115	120
Pro	Leu	Leu	Gln	Pro	Leu	Ser	Leu	Arg	Val	Gly	Met	Leu	Gly	Glu	125	130	135
Lys	Leu	Glu	Ala	Ala	Ile	Gln	Arg	Ser	Leu	His	Tyr	Leu	Lys	Leu	140	145	150
Ser	Asp	Pro	Lys	Tyr	Leu	Arg	Glu	Phe	Gln	Leu	Thr	Leu	Gln	Pro	155	160	165
Gly	Phe	Trp	Lys	Leu	Pro	His	Ala	Trp	Ile	His	Thr	Asp	Ala	Ser	170	175	180
Leu	Val	Tyr	Pro	Thr	Phe	Gly	Pro	Gln	Asp	Ser	Phe	Ser	Glu	Glu	185	190	195
Arg	Ser	Asp	Val	Cys	Leu	Val	Gln	Leu	Leu	Gly	Thr	Gly	Thr	Asp	200	205	210
Ser	Ser	Glu	Pro	Cys	Gly	Leu	Ser	Asp	Leu	Cys	Arg	Ser	Leu	Met	215	220	225
Thr	Lys	Pro	Gly	Cys	Ser	Gly	Tyr	Cys	Leu	Ser	His	Gln	Leu	Leu	230	235	240
Phe	Phe	Leu	Trp	Ala	Arg	Met	Arg	Gly	Cys	Thr	Gln	Gly	Pro	Leu	245	250	255
Gln	Gln	Ser	Gln	Asp	Tyr	Ile	Asn	Leu	Phe	Cys	Ala	Asn	Met	Met	260	265	270
Asp	Leu	Asn	Arg	Arg	Ala	Glu	Ala	Ile	Gly	Tyr	Ala	Tyr	Pro	Thr	275	280	285
Arg	Asp	Ile	Phe	Met	Glu	Asn	Ile	Met	Phe	Cys	Gly	Met	Gly	Gly	290	295	300
Phe	Ser	Asp	Phe	Tyr	Lys	Leu	Arg	Trp	Leu	Glu	Ala	Ile	Leu	Ser	305	310	315

Trp	Gln	Lys	Gln	Gln	Glu	Gly	Cys	Phe	Gly	Glu	Pro	Asp	Ala	Glu	
			320						325					330	
Asp	Glu	Glu	Leu	Ser	Lys	Ala	Ile	Gln	Tyr	Gln	Gln	His	Phe	Ser	
			335						340					345	
Arg	Arg	Val	Lys	Arg	Arg	Glu	Lys	Gln	Phe	Pro	Asp	Ser	Arg	Ser	
			350						355					360	
Val	Ala	Gln	Ala	Gly	Val	Gln	Trp	Arg	Asn	Leu	Gly	Ser	Leu	Gln	
			365						370					375	
Pro	Leu	Pro	Pro	Gly	Phe	Lys	Gln	Phe	Ser	Cys	Leu	Ile	Leu	Pro	
			380						385					390	
Ser	Ser	Trp	Asp	Tyr	Arg	Ser	Val	Pro	Pro	Tyr	Leu	Ala	Asn	Phe	
			395						400					405	
Tyr	Ile	Phe	Leu	Val	Glu	Thr	Gly	Phe	His	His	Val	Ala	His	Ala	
			410						415					420	
Gly	Leu	Glu	Leu	Leu	Ile	Ser	Arg	Asp	Pro	Pro	Thr	Ser	Gly	Ser	
			425						430					435	
Gln	Ser	Val	Gly	Leu											
			440												

<210> 135
 <211> 884
 <212> DNA
 <213> Homo Sapien

<400> 135
 ggtctgagtg cagagctgct gtcattggcgg ccgctctgtg gggcttcttt 50
 cccgtcctgc tgctgctgct gctatcgggg gatgtccaga gctcggaggt 100
 gcccggggct gctgctgagg gatcgggagg gaggggggtc ggcataggag 150
 atcgcttcaa gattgagggg cgtgcagttg ttccaggggt gaagcctcag 200
 gactggatct cggcggcccc agtgctggta gacggagaag agcacgtcgg 250
 tttccttaag acagatggga gttttgtggg tcatgatata ctttctggat 300
 cttatgtagt ggaagttgta tctccagctt acagatttga tcccgttcga 350
 gtggatatca cttcgaaagg aaaaatgaga gcaagatatg tgaattacat 400
 caaaacatca gaggttgta gactgcccta tcctctccaa atgaaatctt 450
 cagggtccacc ttcttacttt attaaaaggg aatcgtgggg ctggacagac 500
 tttctaata acccaatggg tatgatgatg gttcttcctt tattgatatt 550
 tgtgcttctg cctaaagtgg tcaacacaag tgatcctgac atgagacggg 600
 aaatggagca gtcaatgaat atgctgaatt ccaaccatga gttgcctgat 650

gtttctgagt tcatgacaag actcttctct tcaaaatcat ctggcaaadc 700
tagcagcggc agcagtaaaa caggcaaaaag tggggctggc aaaaggaggt 750
agtcaggccg tccagagctg gcatttgcac aaacacggca aactggggtg 800
gcatccaagt cttggaaaac cgtgtgaagc aactactata aacttgagtc 850
atcccgaagt tgatctctta caactgtgta tggt 884

<210> 136

<211> 242

<212> PRT

<213> Homo Sapien

<400> 136

Met	Ala	Ala	Ala	Leu	Trp	Gly	Phe	Phe	Pro	Val	Leu	Leu	Leu	Leu	1	5	10	15
Leu	Leu	Ser	Gly	Asp	Val	Gln	Ser	Ser	Glu	Val	Pro	Gly	Ala	Ala	20	25	30	
Ala	Glu	Gly	Ser	Gly	Gly	Ser	Gly	Val	Gly	Ile	Gly	Asp	Arg	Phe	35	40	45	
Lys	Ile	Glu	Gly	Arg	Ala	Val	Val	Pro	Gly	Val	Lys	Pro	Gln	Asp	50	55	60	
Trp	Ile	Ser	Ala	Ala	Arg	Val	Leu	Val	Asp	Gly	Glu	Glu	His	Val	65	70	75	
Gly	Phe	Leu	Lys	Thr	Asp	Gly	Ser	Phe	Val	Val	His	Asp	Ile	Pro	80	85	90	
Ser	Gly	Ser	Tyr	Val	Val	Glu	Val	Val	Ser	Pro	Ala	Tyr	Arg	Phe	95	100	105	
Asp	Pro	Val	Arg	Val	Asp	Ile	Thr	Ser	Lys	Gly	Lys	Met	Arg	Ala	110	115	120	
Arg	Tyr	Val	Asn	Tyr	Ile	Lys	Thr	Ser	Glu	Val	Val	Arg	Leu	Pro	125	130	135	
Tyr	Pro	Leu	Gln	Met	Lys	Ser	Ser	Gly	Pro	Pro	Ser	Tyr	Phe	Ile	140	145	150	
Lys	Arg	Glu	Ser	Trp	Gly	Trp	Thr	Asp	Phe	Leu	Met	Asn	Pro	Met	155	160	165	
Val	Met	Met	Met	Val	Leu	Pro	Leu	Leu	Ile	Phe	Val	Leu	Leu	Pro	170	175	180	
Lys	Val	Val	Asn	Thr	Ser	Asp	Pro	Asp	Met	Arg	Arg	Glu	Met	Glu	185	190	195	
Gln	Ser	Met	Asn	Met	Leu	Asn	Ser	Asn	His	Glu	Leu	Pro	Asp	Val				

	200		205		210
Ser Glu Phe Met Thr Arg Leu Phe Ser Ser Lys Ser Ser Gly Lys					
	215		220		225
Ser Ser Ser Gly Ser Ser Lys Thr Gly Lys Ser Gly Ala Gly Lys					
	230		235		240

Arg Arg

<210> 137

<211> 1571

<212> DNA

<213> Homo Sapien

<400> 137

```

gatggcgag ccacagcttc tgtgagattc gatttctccc cagttcccct 50
gtgggtctga ggggaccaga aggggtgagct acgttggctt tctggaaggg 100
gaggctatat gcgtcaattc cccaaaacaa gttttgacat ttcccctgaa 150
atgtcattct ctatctattc actgcaagtg cctgctgttc caggccttac 200
ctgctgggca ctaacggcgg agccaggatg gggacagaat aaaggagcca 250
cgacctgtgc caccaactcg cactcagact ctgaactcag acctgaaatc 300
ttctcttcac gggaggcttg gcagtttttc ttactcctgt ggtctccaga 350
tttcaggcct aagatgaaaag cctctagtct tgccttcagc cttctctctg 400
ctgcgtttta tctcctatgg actccttcca ctggactgaa gacactcaat 450
ttgggaagct gtgtgatcgc cacaaacctt caggaaatac gaaatggatt 500
ttctgagata cggggcagtg tgcaagccaa agatggaaac attgacatca 550
gaatcttaag gaggactgag tctttgcaag acacaaagcc tgcgaatcga 600
tgctgcctcc tgcgccattt gctaagactc tatctggaca gggtatTTaa 650
aaactaccag acccctgacc attatactct ccggaagatc agcagcctcg 700
ccaattcctt tcttaccatc aagaaggacc tccggctctc tcatgcccac 750
atgacatgcc attgtgggga ggaagcaatg aagaaataca gccagattct 800
gagtcacttt gaaaagctgg aacctcaggc agcagttgtg aaggcttttg 850
gggaactaga cattcttctg caatggatgg aggagacaga ataggaggaa 900
agtgatgctg ctgctaagaa tattecaggt caagagctcc agtcttcaat 950
acctgcagag gaggcagac cccaaaccac catctcttta ctgtactagt 1000
cttgtgctgg tcacagtgtg tcttatttat gcattacttg cttccttgca 1050

```

tgattgtctt tatgcatccc caatcttaat tgagaccata cttgtataag 1100
 atttttgtaa tatctttctg ctattggata tatttattag ttaatatatt 1150
 tatttatttt ttgctattta atgtatttat ttttttactt ggacatgaaa 1200
 ctttaaaaaa attcacagat tatatttata acctgactag agcaggtgat 1250
 gtatttttat acagtaaaaa aaaaaaacct tgtaaattct agaagagtgg 1300
 ctaggggggt tattcatttg tattcaacta aggacatatt tactcatgct 1350
 gatgctctgt gagatatttg aaattgaacc aatgactact taggatgggt 1400
 tgtggaataa gttttgatgt ggaattgcac atctacctta caattactga 1450
 ccatccccag tagactcccc agtcccataa ttgtgtatct tccagccagg 1500
 aatcctacac ggccagcatg tatttctaca aataaagttt tctttgcata 1550
 ccaaaaaaaaa aaaaaaaaaa a 1571

<210> 138
 <211> 261
 <212> PRT
 <213> Homo Sapien

<400> 138
 Met Arg Gln Phe Pro Lys Thr Ser Phe Asp Ile Ser Pro Glu Met
 1 5 10 15
 Ser Phe Ser Ile Tyr Ser Leu Gln Val Pro Ala Val Pro Gly Leu
 20 25 30
 Thr Cys Trp Ala Leu Thr Ala Glu Pro Gly Trp Gly Gln Asn Lys
 35 40 45
 Gly Ala Thr Thr Cys Ala Thr Asn Ser His Ser Asp Ser Glu Leu
 50 55 60
 Arg Pro Glu Ile Phe Ser Ser Arg Glu Ala Trp Gln Phe Phe Leu
 65 70 75
 Leu Leu Trp Ser Pro Asp Phe Arg Pro Lys Met Lys Ala Ser Ser
 80 85 90
 Leu Ala Phe Ser Leu Leu Ser Ala Ala Phe Tyr Leu Leu Trp Thr
 95 100 105
 Pro Ser Thr Gly Leu Lys Thr Leu Asn Leu Gly Ser Cys Val Ile
 110 115 120
 Ala Thr Asn Leu Gln Glu Ile Arg Asn Gly Phe Ser Glu Ile Arg
 125 130 135
 Gly Ser Val Gln Ala Lys Asp Gly Asn Ile Asp Ile Arg Ile Leu

140										145					150				
Arg	Arg	Thr	Glu	Ser	Leu	Gln	Asp	Thr	Lys	Pro	Ala	Asn	Arg	Cys					
155										160					165				
Cys	Leu	Leu	Arg	His	Leu	Leu	Arg	Leu	Tyr	Leu	Asp	Arg	Val	Phe					
170										175					180				
Lys	Asn	Tyr	Gln	Thr	Pro	Asp	His	Tyr	Thr	Leu	Arg	Lys	Ile	Ser					
185										190					195				
Ser	Leu	Ala	Asn	Ser	Phe	Leu	Thr	Ile	Lys	Lys	Asp	Leu	Arg	Leu					
200										205					210				
Ser	His	Ala	His	Met	Thr	Cys	His	Cys	Gly	Glu	Glu	Ala	Met	Lys					
215										220					225				
Lys	Tyr	Ser	Gln	Ile	Leu	Ser	His	Phe	Glu	Lys	Leu	Glu	Pro	Gln					
230										235					240				
Ala	Ala	Val	Val	Lys	Ala	Leu	Gly	Glu	Leu	Asp	Ile	Leu	Leu	Gln					
245										250					255				
Trp	Met	Glu	Glu	Thr	Glu														
260																			

<210> 139
 <211> 2395
 <212> DNA
 <213> Homo Sapien

<400> 139
 cctggagccg gaagcgcggc tgcagcaggg cgaggctcca ggtgggggtcg 50
 gttccgcata cagcctagcg tgtccacgat gcggctgggc tccgggactt 100
 tcgctacctg ttgcgtagcg atcgaggtgc tagggatcgc ggtcttcctt 150
 cggggattct tcccggctcc cgttcgttcc tctgccagag cggaacacgg 200
 agcggagccc ccagcgcgcc aaccctcggc tggagccagt tctaactgga 250
 ccacgctgcc accacctctc ttcagtaaag ttgttattgt tctgatagat 300
 gccttgagag atgattttgt gtttgggtca aaggggtgta aatttatgcc 350
 ctacacaact taccttgtag aaaaaggagc atctcacagt tttgtggctg 400
 aagcaaagcc acctacagtt actatgcctc gaatcaaggc attgatgacg 450
 gggagccttc ctggctttgt cgacgtcatc aggaacctca attctcctgc 500
 actgctggaa gacagtgtga taagacaagc aaaagcagct ggaaaaagaa 550
 tagtctttta tggagatgaa acctgggtta aattattccc aaagcatttt 600
 gtggaatatg atggaacaac ctcatttttc gtgtcagatt acacagaggt 650

ggataataat gtcacgaggc atttggataa agtattaaaa agaggagatt 700
 gggacatatt aatcctccac tacctggggc tggaccacat tggccacatt 750
 tcagggccca acagccccct gattgggcag aagctgagcg agatggacag 800
 cgtgctgatg aagatccaca cctcactgca gtcgaaggag agagagacgc 850
 ctttacccaa tttgctgggt ctttgtgggt accatggcat gtctgaaaca 900
 ggaagtcacg gggcctcctc caccgaggag gtgaatacac ctctgatttt 950
 aatcagttct gcgtttgaaa ggaaaccggt tgatatccga catccaaagc 1000
 acgtccaata gacggatgtg gctgcgacac tggcgatagc acttggctta 1050
 ccgattccaa aagacagtgt agggagcctc ctattcccag ttgtggaagg 1100
 aagaccaatg agagagcagt tgagattttt acatttgaat acagtgcagc 1150
 ttagtaaact gttgcaagag aatgtgccgt catatgaaaa agatcctggg 1200
 tttgagcagt ttaaaatgtc agaaagattg catgggaact ggatcagact 1250
 gtacttggag gaaaagcatt cagaagtcct attcaacctg ggctccaagg 1300
 ttctcaggca gtacctggat gctctgaaga cgctgagctt gtccctgagt 1350
 gcacaagtgg ccagttctc accctgctcc tgctcagcgt cccacaggca 1400
 ctgcacagaa aggctgagct ggaagtccca ctgtcatctc ctgggttttc 1450
 tctgctcttt tatttgggtga tcctgggtct ttcggccgtt cacgtcattg 1500
 tgtgcacctc agctgaaagt tcgtgctact tctgtggcct ctctgtggctg 1550
 gcggcaggct gcctttcgtt taccagactc tgggtgaaca cctggtgtgt 1600
 gccaaagtgt ggcagtgtcc tggacagggg gcctcaggga aggacgtgga 1650
 gcagccttat cccaggcctc tgggtgtccc gacacagggt ttcacatctg 1700
 tgctgtcagg tcagatgcct cagttcttgg aaagctaggt tcctgcgact 1750
 gttaccaagg tgattgtaaa gagctggcgg tcacagagga acaagcccc 1800
 cagctgaggg ggtgtgtgaa tcggacagcc tcccagcaga ggtgtgggag 1850
 ctgcagctga gggaagaaga gacaatcggc ctggacactc aggagggtca 1900
 aaaggagact tggtcgcacc actcatcctg ccacccccag aatgcatcct 1950
 gcctcatcag gtccagattt ctttccaagg cggacgtttt ctgttgggaat 2000
 tcttagtcct tggcctcggg caccttcatt cgtagctgg ggagtgggtg 2050

tgaggcagtg aagaagagggc ggatgggtcac actcagatcc acagagccca 2100
 ggatcaaggg acccactgca gtggcagcag gactgttggg cccccacccc 2150
 aaccctgcac agccctcatc ccctcttggc ttgagccgtc agaggccctg 2200
 tgctgagtgt ctgaccgaga cactcacagc tttgtcatca gggcacaggc 2250
 ttccctggag ccaggatgat ctgtgccacg cttgcacctc gggcccatct 2300
 gggctcatgc tctctctcct gctattgaat tagtacctag ctgcacacag 2350
 tatgtagtta ccaaaagaat aaacggcaat aattgagaaa aaaaa 2395

<210> 140

<211> 310

<212> PRT

<213> Homo Sapien

<400> 140

Met	Arg	Leu	Gly	Ser	Gly	Thr	Phe	Ala	Thr	Cys	Cys	Val	Ala	Ile	1	5	10	15
Glu	Val	Leu	Gly	Ile	Ala	Val	Phe	Leu	Arg	Gly	Phe	Phe	Pro	Ala	20	25	30	
Pro	Val	Arg	Ser	Ser	Ala	Arg	Ala	Glu	His	Gly	Ala	Glu	Pro	Pro	35	40	45	
Ala	Pro	Glu	Pro	Ser	Ala	Gly	Ala	Ser	Ser	Asn	Trp	Thr	Thr	Leu	50	55	60	
Pro	Pro	Pro	Leu	Phe	Ser	Lys	Val	Val	Ile	Val	Leu	Ile	Asp	Ala	65	70	75	
Leu	Arg	Asp	Asp	Phe	Val	Phe	Gly	Ser	Lys	Gly	Val	Lys	Phe	Met	80	85	90	
Pro	Tyr	Thr	Thr	Tyr	Leu	Val	Glu	Lys	Gly	Ala	Ser	His	Ser	Phe	95	100	105	
Val	Ala	Glu	Ala	Lys	Pro	Pro	Thr	Val	Thr	Met	Pro	Arg	Ile	Lys	110	115	120	
Ala	Leu	Met	Thr	Gly	Ser	Leu	Pro	Gly	Phe	Val	Asp	Val	Ile	Arg	125	130	135	
Asn	Leu	Asn	Ser	Pro	Ala	Leu	Leu	Glu	Asp	Ser	Val	Ile	Arg	Gln	140	145	150	
Ala	Lys	Ala	Ala	Gly	Lys	Arg	Ile	Val	Phe	Tyr	Gly	Asp	Glu	Thr	155	160	165	
Trp	Val	Lys	Leu	Phe	Pro	Lys	His	Phe	Val	Glu	Tyr	Asp	Gly	Thr	170	175	180	
Thr	Ser	Phe	Phe	Val	Ser	Asp	Tyr	Thr	Glu	Val	Asp	Asn	Asn	Val				

	185		190		195
Thr Arg His Leu Asp Lys Val Leu Lys Arg Gly Asp Trp Asp Ile					
	200		205		210
Leu Ile Leu His Tyr Leu Gly Leu Asp His Ile Gly His Ile Ser					
	215		220		225
Gly Pro Asn Ser Pro Leu Ile Gly Gln Lys Leu Ser Glu Met Asp					
	230		235		240
Ser Val Leu Met Lys Ile His Thr Ser Leu Gln Ser Lys Glu Arg					
	245		250		255
Glu Thr Pro Leu Pro Asn Leu Leu Val Leu Cys Gly Asp His Gly					
	260		265		270
Met Ser Glu Thr Gly Ser His Gly Ala Ser Ser Thr Glu Glu Val					
	275		280		285
Asn Thr Pro Leu Ile Leu Ile Ser Ser Ala Phe Glu Arg Lys Pro					
	290		295		300
Gly Asp Ile Arg His Pro Lys His Val Gln					
	305		310		

<210> 141
 <211> 754
 <212> DNA
 <213> Homo Sapien

<400> 141
 ggcacgaggc aagccttcca gggtatcgtg acgcaccttg aaagtctgag 50
 agctactgcc ctacagaaag ttactagtgc cctaaagctg gcgctggcac 100
 tgatgttact gctgctgttg gagtacaact tccctataga aaacaactgc 150
 cagcacctta agaccactca caccttcaga gtgaagaact taaacccgaa 200
 gaaattcagc attcatgacc aggatcacia agtactgggtc ctggactctg 250
 ggaatctcat agcagttcca gataaaaact acatacggcc agagatcttc 300
 tttgcattag cctcatcctt gagctcagcc tctgcggaga aaggaagtcc 350
 gattctcctg ggggtctcta aaggggagtt ttgtctctac tgtgacaagg 400
 ataaaggaca aagtcattcca tcccttcagc tgaagaagga gaaactgatg 450
 aagctggctg cccaaaagga atcagcacgc cggcccttca tcttttatag 500
 ggctcagggtg ggctcctgga acatgctgga gtcggcgggt caccctcgat 550
 gggtcatctg cacctcctgc aattgtaatg agcctgttgg ggtgacagat 600
 aaatttgaga acaggaaaca cattgaattt tcatttcaac cagtttgcaa 650

agctgaaatg agccccagtg aggtcagcga ttaggaaact gccccattga 700

acgccttcct cgctaatttg aactaattgt ataaaaacac caaacctgct 750

cact 754

<210> 142

<211> 193

<212> PRT

<213> Homo Sapien

<400> 142

Met	Leu	Leu	Leu	Leu	Glu	Tyr	Asn	Phe	Pro	Ile	Glu	Asn	Asn
1				5				10					15

Cys	Gln	His	Leu	Lys	Thr	Thr	His	Thr	Phe	Arg	Val	Lys	Asn	Leu
				20					25					30

Asn	Pro	Lys	Lys	Phe	Ser	Ile	His	Asp	Gln	Asp	His	Lys	Val	Leu
				35					40					45

Val	Leu	Asp	Ser	Gly	Asn	Leu	Ile	Ala	Val	Pro	Asp	Lys	Asn	Tyr
				50					55					60

Ile	Arg	Pro	Glu	Ile	Phe	Phe	Ala	Leu	Ala	Ser	Ser	Leu	Ser	Ser
				65					70					75

Ala	Ser	Ala	Glu	Lys	Gly	Ser	Pro	Ile	Leu	Leu	Gly	Val	Ser	Lys
				80					85					90

Gly	Glu	Phe	Cys	Leu	Tyr	Cys	Asp	Lys	Asp	Lys	Gly	Gln	Ser	His
				95					100					105

Pro	Ser	Leu	Gln	Leu	Lys	Lys	Glu	Lys	Leu	Met	Lys	Leu	Ala	Ala
				110					115					120

Gln	Lys	Glu	Ser	Ala	Arg	Arg	Pro	Phe	Ile	Phe	Tyr	Arg	Ala	Gln
				125					130					135

Val	Gly	Ser	Trp	Asn	Met	Leu	Glu	Ser	Ala	Ala	His	Pro	Gly	Trp
				140					145					150

Phe	Ile	Cys	Thr	Ser	Cys	Asn	Cys	Asn	Glu	Pro	Val	Gly	Val	Thr
				155					160					165

Asp	Lys	Phe	Glu	Asn	Arg	Lys	His	Ile	Glu	Phe	Ser	Phe	Gln	Pro
				170					175					180

Val	Cys	Lys	Ala	Glu	Met	Ser	Pro	Ser	Glu	Val	Ser	Asp
				185					190			

<210> 143

<211> 961

<212> DNA

<213> Homo Sapien

<400> 143

ctagagagta tagggcagaa ggatggcaga tgagtgactc cacatccaga 50
 gctgcctccc tttaatccag gatcctgtcc ttctgtcct gtaggagtgc 100
 ctgttgccag tgtggggtga gacaagtttg tcccacaggg ctgtctgagc 150
 agataagatt aagggtctggg tctgtgtctca attaactcct gtgggcacgg 200
 gggctgggaa gagcaaagtc agcgggtgcct acagtcagca ccatgctggg 250
 cctgccgtgg aaggagggtc tgtcctgggc gctgctgctg cttctcttag 300
 gctcccagat cctgctgata tatgcctggc atttccacga gcaaaggac 350
 tgtgatgaac acaatgtcat ggctcggtac ctccctgcca cagtggagtt 400
 tgctgtccac acattcaacc aacagagcaa ggactactat gcctacagac 450
 tggggcacat cttgaattcc tggaaggagc aggtggagtc caagactgta 500
 ttctcaatgg agctactgct ggggagaact aggtgtggga aatttgaaga 550
 cgacattgac aactgccatt tccaagaaag cacagagctg aacaatactt 600
 tcacctgctt cttcaccatc agcaccaggc cctggatgac tcagttcagc 650
 ctctgaaca agacctgctt ggagggattc cactgagtga aaccactca 700
 caggcttgct catgtgctgc tcccacattc cgtggacatc agcactactc 750
 tcctgaggac tcttcagtgg ctgagcagct ttggacttgt ttgttatcct 800
 attttgcatg tgtttgagat ctgagatcag tgttttagaa aatccacaca 850
 tcttgagcct aatcatgtag tgtagatcat taaacatcag cattttaaga 900
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 950
 aaaaaaaaaa a 961

<210> 144

<211> 147

<212> PRT

<213> Homo Sapien

<400> 144

Met	Leu	Gly	Leu	Pro	Trp	Lys	Gly	Gly	Leu	Ser	Trp	Ala	Leu	Leu
1				5					10					15
Leu	Leu	Leu	Leu	Gly	Ser	Gln	Ile	Leu	Leu	Ile	Tyr	Ala	Trp	His
				20					25					30
Phe	His	Glu	Gln	Arg	Asp	Cys	Asp	Glu	His	Asn	Val	Met	Ala	Arg
				35					40					45
Tyr	Leu	Pro	Ala	Thr	Val	Glu	Phe	Ala	Val	His	Thr	Phe	Asn	Gln
				50					55					60

Gln	Ser	Lys	Asp	Tyr	Tyr	Ala	Tyr	Arg	Leu	Gly	His	Ile	Leu	Asn	
				65					70					75	
Ser	Trp	Lys	Glu	Gln	Val	Glu	Ser	Lys	Thr	Val	Phe	Ser	Met	Glu	
				80					85					90	
Leu	Leu	Leu	Gly	Arg	Thr	Arg	Cys	Gly	Lys	Phe	Glu	Asp	Asp	Ile	
				95					100					105	
Asp	Asn	Cys	His	Phe	Gln	Glu	Ser	Thr	Glu	Leu	Asn	Asn	Thr	Phe	
				110					115					120	
Thr	Cys	Phe	Phe	Thr	Ile	Ser	Thr	Arg	Pro	Trp	Met	Thr	Gln	Phe	
				125					130					135	
Ser	Leu	Leu	Asn	Lys	Thr	Cys	Leu	Glu	Gly	Phe	His				
				140					145						

<210> 145

<211> 1157

<212> DNA

<213> Homo Sapien

<400> 145

```

ctgtgcagct cgaggctcca gaggcacact ccagagagag ccaaggttct 50
gacgcgatga ggaagcacct gagctggtgg tggctggcca ctgtctgcat 100
gctgctcttc agccacctct ctgcggtcca gacgaggggc atcaagcaca 150
gaatcaagtg gaaccggaag gccctgcccc gcactgcccc gatcactgag 200
gccaggtgg ctgagaaccg cccgggagcc ttcatcaagc aaggccgcaa 250
gctcgacatt gacttcggag ccgagggcaa caggtactac gaggccaact 300
actggcagtt ccccgatggc atccactaca acggctgctc tgaggctaata 350
gtgaccaagg aggcatttgt caccggctgc atcaatgcca ccagggcggc 400
gaaccagggg gagttccaga agccagacaa caagctccac cagcaggtgc 450
tctggcggct ggtccaggag ctctgctccc tcaagcattg cgagttttgg 500
ttggagaggg gcgcaggact tcgggtcacc atgcaccagc cagtgtcct 550
ctgccttctg gctttgatct ggctcatggt gaaataagct tgccaggagg 600
ctggcagtac agagcgcagc agcgagcaaa tcctggcaag tgacccagct 650
cttctcccc aaaccacgc gtgttctgaa ggtgcccagg agcggcgatg 700
cactcgact gcaaattgcc ctcccacgta tgcgccctgg tatgtgcctg 750
cgttctgata gatgggggac tgtggcttct ccgtcactcc attctcagcc 800
cctagcagag cgtctggcac actagattag tagtaaatgc ttgatgagaa 850

```

gaacacatca ggcactgcgc cacctgcttc acagtacttc ccaacaactc 900
 ttagaggttag gtgtattccc gttttacaga taaggaaact gaggccaga 950
 gagctgaagt actgcacca gcatcaccag ctagaaagtg gcagagccag 1000
 gattcaaccc tggcttgtct aaccccaggt tttctgctct gtccaattcc 1050
 agagctgtct ggtgatcact ttatgtctca cagggacca catccaaaca 1100
 tgtatctcta atgaaattgt gaaagctcca tgtttagaaa taaatgaaaa 1150
 cacctga 1157

<210> 146

<211> 176

<212> PRT

<213> Homo Sapien

<400> 146

Met	Arg	Lys	His	Leu	Ser	Trp	Trp	Trp	Leu	Ala	Thr	Val	Cys	Met	1	5	10	15
Leu	Leu	Phe	Ser	His	Leu	Ser	Ala	Val	Gln	Thr	Arg	Gly	Ile	Lys	20	25	30	
His	Arg	Ile	Lys	Trp	Asn	Arg	Lys	Ala	Leu	Pro	Ser	Thr	Ala	Gln	35	40	45	
Ile	Thr	Glu	Ala	Gln	Val	Ala	Glu	Asn	Arg	Pro	Gly	Ala	Phe	Ile	50	55	60	
Lys	Gln	Gly	Arg	Lys	Leu	Asp	Ile	Asp	Phe	Gly	Ala	Glu	Gly	Asn	65	70	75	
Arg	Tyr	Tyr	Glu	Ala	Asn	Tyr	Trp	Gln	Phe	Pro	Asp	Gly	Ile	His	80	85	90	
Tyr	Asn	Gly	Cys	Ser	Glu	Ala	Asn	Val	Thr	Lys	Glu	Ala	Phe	Val	95	100	105	
Thr	Gly	Cys	Ile	Asn	Ala	Thr	Gln	Ala	Ala	Asn	Gln	Gly	Glu	Phe	110	115	120	
Gln	Lys	Pro	Asp	Asn	Lys	Leu	His	Gln	Gln	Val	Leu	Trp	Arg	Leu	125	130	135	
Val	Gln	Glu	Leu	Cys	Ser	Leu	Lys	His	Cys	Glu	Phe	Trp	Leu	Glu	140	145	150	
Arg	Gly	Ala	Gly	Leu	Arg	Val	Thr	Met	His	Gln	Pro	Val	Leu	Leu	155	160	165	
Cys	Leu	Leu	Ala	Leu	Ile	Trp	Leu	Met	Val	Lys	170	175						

<210> 147
 <211> 333
 <212> DNA
 <213> Homo Sapien

<400> 147
 gccttggcct cccaaagggc tgggattata ggcgtgacca ccatgtctgg 50
 tccagagtct catttcctga tgatttatag actcaaagaa aactcatggt 100
 cagaagctct cttctcttct ggcctcctct ctgtcttctt tccctctttc 150
 ttcttatttt aattagtagc atctactcag agtcatgcaa gctggaaatc 200
 tttcattttg cttgtcagtg gggtaggtca ctgagtccta gtttttattt 250
 tttgaaattt caactttcag attcaggggg tacatgtgaa ggtttgtttt 300
 atgagtatat tgcattgatgc tgaggtttgg ggt 333

<210> 148
 <211> 73
 <212> PRT
 <213> Homo Sapien

<400> 148
 Met Phe Arg Ser Ser Leu Leu Phe Trp Pro Pro Leu Cys Leu Leu
 1 5 10 15
 Ser Leu Phe Leu Leu Ile Leu Ile Ser Ser Ile Tyr Ser Glu Ser
 20 25 30
 Cys Lys Leu Glu Ile Phe His Phe Ala Cys Gln Trp Gly Arg Ser
 35 40 45
 Leu Ser Leu Ser Phe Tyr Phe Leu Lys Phe Gln Leu Ser Asp Ser
 50 55 60
 Gly Gly Thr Cys Glu Gly Leu Phe Tyr Glu Tyr Ile Ala
 65 70

<210> 149
 <211> 1893
 <212> DNA
 <213> Homo Sapien

<400> 149
 gtctccgctg cacaggaact tcagcaccca caggcgcgac agcgctcccc 50
 tctacctgga gacttgactc ccgcgcgccc caaccctgct tatcccttga 100
 ccgtcgagtg tcagagatcc tgcagccgcc cagtcccggc ccctctcccg 150
 cccacacccc accctcctgg ctcttctgt ttttactcct ctttttcatt 200
 cataacaaaa gctacagctc caggagccca gcgccgggct gtgaccaag 250

ccgagcgtgg aagaatgggg ttctctggga cgggcacttg gattctggtg 300
 ttagtgctcc cgattcaagc tttcccaaaa cctggaggaa gccaagacaa 350
 atctctacat aatagagaat taagtgcaga aagacctttg aatgaacaga 400
 ttgctgaagc agaagaagac aagattaaaa aaacatatcc tccagaaaac 450
 aagccaggtc agagcaacta ttcttttgtt gataacttga acctgctaaa 500
 ggcaataaca gaaaaggaaa aaattgagaa agaaagacaa tctataagaa 550
 gctccccact tgataataag ttgaatgtgg aagatgttga ttcaaccaag 600
 aatcgaaaac tgatcgatga ttatgactct actaagagtg gattggatca 650
 taaatttcaa gatgatccag atggctctca tcaactagac gggactcctt 700
 taaccgctga agacattgtc cataaaatcg ctgccaggat ttatgaagaa 750
 aatgacagag ccgtgtttga caagattgtt tctaaactac ttaatctcgg 800
 ccttatcaca gaaagccaag cacatacact ggaagatgaa gtagcagagg 850
 ttttacaaaa attaattctca aaggaagcca acaattatga ggaggatccc 900
 aataagccca caagctggac tgagaatcag gctggaaaaa taccagagaa 950
 agtgactcca atggcagcaa ttcaagatgg tcttgctaag ggagaaaacg 1000
 atgaaacagt atctaacaca ttaaccttga caaatggctt ggaaaggaga 1050
 actaaaacct acagtgaaga caactttgag gaactccaat atttcccaaa 1100
 tttctatgcg ctactgaaaa gtattgattc agaaaaagaa gcaaaaagaga 1150
 aagaaacact gattactatc atgaaaacac tgattgactt tgtgaagatg 1200
 atgggtgaaat atggaacaat atctccagaa gaagggtgtt cctaccttga 1250
 aaacttggat gaaatgattg ctcttcagac caaaaacaag ctagaaaaaa 1300
 atgctactga caatataagc aagcttttcc cagcaccatc agagaagagt 1350
 catgaagaaa cagacagtac caaggaagaa gcagctaaga tggaaaagga 1400
 atatggaagc ttgaaggatt ccacaaaaga tgataactcc aaccaggag 1450
 gaaagacaga tgaacccaaa ggaaaaacag aagcctatctt ggaagccatc 1500
 agaaaaaata ttgaatgggt gaagaaacat gacaaaaagg gaaataaaga 1550
 agattatgac ctttcaaaga tgagagactt catcaataaa caagctgatg 1600
 cttatgtgga gaaaggcatc cttgacaagg aagaagccga ggccatcaag 1650
 cgcatttata gcagcctgta aaaatggcaa aagatccagg agtctttcaa 1700

ctgtttcaga aaacataata tagcttaaaa cacttctaata tctgtgatta 1750
 aaattttttg acccaagggt tattagaaag tgctgaattt acagtagtta 1800
 acctttttaca agtgggttaaa acatagcttt cttcccgtaa aaactatctg 1850
 aaagtaaagt tgtatgtaag ctgaaaaaaaa aaaaaaaaaa aaa 1893

<210> 150
 <211> 468
 <212> PRT
 <213> Homo Sapien

<400> 150
 Met Gly Phe Leu Gly Thr Gly Thr Trp Ile Leu Val Leu Val Leu
 1 5 10 15
 Pro Ile Gln Ala Phe Pro Lys Pro Gly Gly Ser Gln Asp Lys Ser
 20 25 30
 Leu His Asn Arg Glu Leu Ser Ala Glu Arg Pro Leu Asn Glu Gln
 35 40 45
 Ile Ala Glu Ala Glu Glu Asp Lys Ile Lys Lys Thr Tyr Pro Pro
 50 55 60
 Glu Asn Lys Pro Gly Gln Ser Asn Tyr Ser Phe Val Asp Asn Leu
 65 70 75
 Asn Leu Leu Lys Ala Ile Thr Glu Lys Glu Lys Ile Glu Lys Glu
 80 85 90
 Arg Gln Ser Ile Arg Ser Ser Pro Leu Asp Asn Lys Leu Asn Val
 95 100 105
 Glu Asp Val Asp Ser Thr Lys Asn Arg Lys Leu Ile Asp Asp Tyr
 110 115 120
 Asp Ser Thr Lys Ser Gly Leu Asp His Lys Phe Gln Asp Asp Pro
 125 130 135
 Asp Gly Leu His Gln Leu Asp Gly Thr Pro Leu Thr Ala Glu Asp
 140 145 150
 Ile Val His Lys Ile Ala Ala Arg Ile Tyr Glu Glu Asn Asp Arg
 155 160 165
 Ala Val Phe Asp Lys Ile Val Ser Lys Leu Leu Asn Leu Gly Leu
 170 175 180
 Ile Thr Glu Ser Gln Ala His Thr Leu Glu Asp Glu Val Ala Glu
 185 190 195
 Val Leu Gln Lys Leu Ile Ser Lys Glu Ala Asn Asn Tyr Glu Glu
 200 205 210
 Asp Pro Asn Lys Pro Thr Ser Trp Thr Glu Asn Gln Ala Gly Lys

	215		220		225
Ile Pro Glu Lys	Val Thr Pro Met Ala	Ala Ile Gln Asp Gly	Leu		
	230		235		240
Ala Lys Gly Glu	Asn Asp Glu Thr Val	Ser Asn Thr Leu Thr	Leu		
	245		250		255
Thr Asn Gly Leu	Glu Arg Arg Thr Lys	Thr Tyr Ser Glu Asp	Asn		
	260		265		270
Phe Glu Glu Leu	Gln Tyr Phe Pro Asn	Phe Tyr Ala Leu Leu	Lys		
	275		280		285
Ser Ile Asp Ser	Glu Lys Glu Ala Lys	Glu Lys Glu Thr Leu	Ile		
	290		295		300
Thr Ile Met Lys	Thr Leu Ile Asp Phe	Val Lys Met Met Val	Lys		
	305		310		315
Tyr Gly Thr Ile	Ser Pro Glu Glu Gly	Val Ser Tyr Leu Glu	Asn		
	320		325		330
Leu Asp Glu Met	Ile Ala Leu Gln Thr	Lys Asn Lys Leu Glu	Lys		
	335		340		345
Asn Ala Thr Asp	Asn Ile Ser Lys Leu	Phe Pro Ala Pro Ser	Glu		
	350		355		360
Lys Ser His Glu	Glu Thr Asp Ser Thr	Lys Glu Glu Ala Ala	Lys		
	365		370		375
Met Glu Lys Glu	Tyr Gly Ser Leu Lys	Asp Ser Thr Lys Asp	Asp		
	380		385		390
Asn Ser Asn Pro	Gly Gly Lys Thr Asp	Glu Pro Lys Gly Lys	Thr		
	395		400		405
Glu Ala Tyr Leu	Glu Ala Ile Arg Lys	Asn Ile Glu Trp Leu	Lys		
	410		415		420
Lys His Asp Lys	Lys Gly Asn Lys Glu	Asp Tyr Asp Leu Ser	Lys		
	425		430		435
Met Arg Asp Phe	Ile Asn Lys Gln Ala	Asp Ala Tyr Val Glu	Lys		
	440		445		450
Gly Ile Leu Asp	Lys Glu Glu Ala Glu	Ala Ile Lys Arg Ile	Tyr		
	455		460		465
Ser Ser Leu					

<210> 151
 <211> 2598
 <212> DNA
 <213> Homo Sapien

<400> 151

cggctcgagg ctcccgccag gagaaaggaa cattctgagg ggagtctaca 50
ccctgtggag ctcaagatgg tcctgagtgg ggcgctgtgc ttccgaatga 100
aggactcggc attgaagggtg ctttatctgc ataataacca gcttctagct 150
ggagggctgc atgcagggaa ggtcattaaa ggtgaagaga tcagcgtggg 200
ccccaatcgg tggctggatg ccagcctgtc ccccgtcac ctaggtgtcc 250
agggtggaag ccagtgcctg tcatgtgggg tggggcagga gccgactcta 300
aactagagc cagtgaacat catggagctc tatcttgggtg ccaaggaatc 350
caagagcttc accttctacc ggcgggacat ggggctcacc tccagcttcg 400
agtcggctgc ctacccgggc tggttcctgt gcacgggtgcc tgaagccgat 450
cagcctgtca gactcaccca gcttcccgag aatgggtggct ggaatgcccc 500
catcacagac ttctacttcc agcagtgtga ctagggaac gtgcccccca 550
gaactccctg ggcagagcca gctcgggtga ggggtgagtg gaggagaccc 600
atggcggaca atcactctct ctgctctcag gacccccacg tctgacttag 650
tgggcacctg accactttgt cttctggttc ccagtttga taaattctga 700
gatttgagc tcagtccacg gtctccccc actggatggg gctactgctg 750
tggaaccttg taaaaaccat gtggggtaaa ctgggaataa catgaaaaga 800
tttctgtggg ggtgggggtg gggagtgggtg ggaatcattc ctgcttaatg 850
gtaactgaca agtggttacc tgagccccgc aggccaaccc atccccagtt 900
gagccttata gggctcagtag ctctccacat gaagtcctgt cactcaccac 950
tgtgcaggag agggaggtgg tcatagagtc agggatctat ggccttggc 1000
ccagccccac ccccttcctt ttaatcctgc cactgtcata tgctaccttt 1050
cctatctctt ccctcatcat cttgttgtgg gcatgaggag gtgggtgatgt 1100
cagaagaaat ggctcgagct cagaagataa aagataagta gggatatgctg 1150
atcctctttt aaaaacccaa gataaatca aaatcccaga tgctggtctc 1200
tattcccatg aaaaagtgt catgacatat tgagaagacc tacttacaaa 1250
gtggcatata ttgcaattta ttttaattaa aagataccta tttatatatt 1300
tctttataga aaaaagtctg gaagagttta cttcaattgt agcaatgtca 1350
gggtggtggc agtatagggtg atttttcttt taattctgtt aatttatctg 1400

tatttcttaa ttttctaca atgaagatga attccttgta taaaaataag 1450
aaaagaaatt aatcttgagg taagcagagc agacatcatc tctgattgtc 1500
ctcagcctcc acttccccag agtaaattca aattgaatcg agctctgctg 1550
ctctggttgg ttgtagtagt gatcaggaaa cagatctcag caaagccact 1600
gaggaggagg ctgtgctgag tttgtgtggc tggaatctct gggtaaggaa 1650
cttaaagaac aaaaatcatc tggttaattct ttcctagaag gatcacagcc 1700
cctgggattc caaggcattg gatccagtct ctaagaaggc tgctgtactg 1750
gttgaattgt gtccccctca aattcacatc cttcttgga tctcagtctg 1800
tgagtttatt tggagataag gtctctgcag atgtagttag ttaagacaag 1850
gtcatgctgg atgaaggtag acctaaattc aatatgactg gtttccttgt 1900
atgaaaagga gaggacacag agacagagga gacgcgggga agactatgta 1950
aagatgaagg cagagatcgg agttttgcag ccacaagcta agaaacacca 2000
aggattgtgg caaccatcag aagcttgga gaggcaaaga agaattcttc 2050
cctagaggct ttagagggat aacggctctg ctgaaacctt aatctcagac 2100
ttccagcctc ctgaacgaag aaagaataaa tttcggctgt ttttaagccac 2150
caaggataat tggttacagc agctctagga aactaataca gctgctaaaa 2200
tgatccctgt ctctctgtgt ttacattctg tgtgtgtccc ctcccacaat 2250
gtaccaaagt tgtctttgtg accaatagaa tatggcagaa gtgatggcat 2300
gccacttcca agattagggt ataaaagaca ctgcagcttc tacttgagcc 2350
ctctctctct gccaccacc gcccccaatc tatcttggt cactcgctct 2400
gggggaagct agctgccatg ctatgagcag gcctataaag agacttacgt 2450
ggtaaaaaat gaagtctcct gccacagcc acattagtga acctagaagc 2500
agagactctg tgagataatc gatgtttgtt gttttaagtt gctcagtttt 2550
ggtctaactt gttatgcagc aatagataaa taatatgcag agaaagag 2598

<210> 152

<211> 155

<212> PRT

<213> Homo Sapien

<400> 152

Met	Val	Leu	Ser	Gly	Ala	Leu	Cys	Phe	Arg	Met	Lys	Asp	Ser	Ala
1				5					10					15

Leu Lys Val Leu Tyr Leu His Asn Asn Gln Leu Leu Ala Gly Gly
 20 25 30
 Leu His Ala Gly Lys Val Ile Lys Gly Glu Glu Ile Ser Val Val
 35 40 45
 Pro Asn Arg Trp Leu Asp Ala Ser Leu Ser Pro Val Ile Leu Gly
 50 55 60
 Val Gln Gly Gly Ser Gln Cys Leu Ser Cys Gly Val Gly Gln Glu
 65 70 75
 Pro Thr Leu Thr Leu Glu Pro Val Asn Ile Met Glu Leu Tyr Leu
 80 85 90
 Gly Ala Lys Glu Ser Lys Ser Phe Thr Phe Tyr Arg Arg Asp Met
 95 100 105
 Gly Leu Thr Ser Ser Phe Glu Ser Ala Ala Tyr Pro Gly Trp Phe
 110 115 120
 Leu Cys Thr Val Pro Glu Ala Asp Gln Pro Val Arg Leu Thr Gln
 125 130 135
 Leu Pro Glu Asn Gly Gly Trp Asn Ala Pro Ile Thr Asp Phe Tyr
 140 145 150
 Phe Gln Gln Cys Asp
 155
 <210> 153
 <211> 1152
 <212> DNA
 <213> Homo Sapien

<400> 153
 cttcagaaca ggttctcctt cccagtcac cagttgctcg agttagaatt 50
 gtctgcaatg gccgccctgc agaaatctgt gagctctttc cttatgggga 100
 ccctggccac cagctgcctc cttctcttgg ccctcttggt acagggagga 150
 gcagctgcgc ccatcagctc cactgcagg cttgacaagt ccaacttcca 200
 gcagccctat atcaccaacc gcaccttcat gctggctaag gaggctagct 250
 tggctgataa caacacagac gttcgtctca ttggggagaa actgttccac 300
 ggagtcagta tgagtgagcg ctgctatctg atgaagcagg tgctgaactt 350
 cacccttgaa gaagtgctgt tccctcaatc tgatagggtc cagccttata 400
 tgcaggaggt ggtgcccttc ctggccaggc tcagcaacag gctaagcaca 450
 tgtcatattg aaggtgatga cctgcatatc cagaggaatg tgcaaaagct 500
 gaaggacaca gtgaaaaagc ttggagagag tggagagatc aaagcaattg 550

gagaactgga tttgctgttt atgtctctga gaaatgcctg catttgacca 600
gagcaaagct gaaaaatgaa taactaacc cctttccctg ctagaaataa 650
caattagatg ccccaaagcg atttttttta accaaaagga agatgggaag 700
ccaaactcca tcatgatggg tggattccaa atgaaccctt gcgttagtta 750
caaaggaaac caatgccact tttgtttata agaccagaag gtagactttc 800
taagcataga tattttattga taacatttca ttgtaactgg tgttctatac 850
acagaaaaca atttattttt taaataattg tctttttcca taaaaaagat 900
tactttccat tcctttaggg gaaaaaaccc ctaaataagct tcatgtttcc 950
ataatcagta ctttatattt ataaatgtat ttattattat tataagactg 1000
cattttattt atatcatttt attaatatgg atttatttat agaaacatca 1050
ttcgatattg ctacttgagt gtaaggctaa tattgatatt tatgacaata 1100
attatagagc tataacatgt ttatttgacc tcaataaaca cttggatatc 1150
cc 1152

<210> 154
<211> 179
<212> PRT
<213> Homo Sapien

<400> 154
Met Ala Ala Leu Gln Lys Ser Val Ser Ser Phe Leu Met Gly Thr
1 5 10 15
Leu Ala Thr Ser Cys Leu Leu Leu Leu Ala Leu Leu Val Gln Gly
20 25 30
Gly Ala Ala Ala Pro Ile Ser Ser His Cys Arg Leu Asp Lys Ser
35 40 45
Asn Phe Gln Gln Pro Tyr Ile Thr Asn Arg Thr Phe Met Leu Ala
50 55 60
Lys Glu Ala Ser Leu Ala Asp Asn Asn Thr Asp Val Arg Leu Ile
65 70 75
Gly Glu Lys Leu Phe His Gly Val Ser Met Ser Glu Arg Cys Tyr
80 85 90
Leu Met Lys Gln Val Leu Asn Phe Thr Leu Glu Glu Val Leu Phe
95 100 105
Pro Gln Ser Asp Arg Phe Gln Pro Tyr Met Gln Glu Val Val Pro
110 115 120

Phe	Leu	Ala	Arg	Leu	Ser	Asn	Arg	Leu	Ser	Thr	Cys	His	Ile	Glu
				125					130					135
Gly	Asp	Asp	Leu	His	Ile	Gln	Arg	Asn	Val	Gln	Lys	Leu	Lys	Asp
				140					145					150
Thr	Val	Lys	Lys	Leu	Gly	Glu	Ser	Gly	Glu	Ile	Lys	Ala	Ile	Gly
				155					160					165
Glu	Leu	Asp	Leu	Leu	Phe	Met	Ser	Leu	Arg	Asn	Ala	Cys	Ile	
				170					175					

<210> 155

<211> 1320

<212> DNA

<213> Homo Sapien

<400> 155

```

ggcttgctga aaataaaatc aggactccta acctgctcca gtcagcctgc 50
ttccacgagg cctgtcagtc agtgcccgac ttgtgactga gtgtgcagtg 100
cccagcatgt accaggtcag tgcagagggc tgcctgaggg ctgtgctgag 150
agggagagga gcagagatgc tgctgagggg ggagggaggc caagctgcca 200
ggtttggggc tgggggccaa gtggagttag aaactgggat cccaggggga 250
gggtgcagat gagggagcga cccagattag gtgaggacag ttctctcatt 300
agccttttcc tacaggtggg tgcattcttg gcaatgggtca tgggaacca 350
cacctacagc cactggccca gctgctgccc cagcaaaggg caggacacct 400
ctgaggagct gctgaggtgg agcactgtgc ctgtgcctcc cctagagcct 450
gctaggccca accgccaccc agagtcctgt agggccagtg aagatggacc 500
cctcaacagc agggccatct cccctggag atatgagttg gacagagact 550
tgaaccggct cccccaggac ctgtaccacg cccgttgctt gtgcccgcac 600
tgcgctagcc tacagacagg ctcccacatg gacccccggg gcaactcgga 650
gctgctctac cacaaccaga ctgtcttcta caggcggcca tgccatggcg 700
agaagggcac ccacaagggc tactgcctgg agcgcaggct gtaccgtgtt 750
tccttagctt gtgtgtgtgt gcggccccgt gtgatgggct agccggacct 800
gctggaggct ggtccctttt tgggaaacct ggagccaggt gtacaaccac 850
ttgccatgaa gggccaggat gccagatgc ttggcccctg tgaagtgtgt 900
tctggagcag caggatcccc ggacaggatg gggggctttg gggaaaacct 950
gcatttctgc acattttgaa aagagcagct gctgcttagg gccgccggaa 1000

```

gctggtgtcc tgtcattttc tctcaggaaa ggttttcaaa gttctgcca 1050
 tttctggagg ccaccactcc tgtctcttcc tcttttccca tcccctgcta 1100
 ccctggccca gcacaggcac tttctagata tttccccctt gctggagaag 1150
 aaagagcccc tggttttatt tgtttgttta ctcactactc agtgagcatc 1200
 tactttgggt gcattctagt gtagttacta gtcttttgac atggatgatt 1250
 ctgaggagga agctgttatt gaatgtatag agatttatcc aaataaatat 1300
 ctttatttaa aaatgaaaaa 1320

<210> 156

<211> 177

<212> PRT

<213> Homo Sapien

<400> 156

Met	Arg	Glu	Arg	Pro	Arg	Leu	Gly	Glu	Asp	Ser	Ser	Leu	Ile	Ser	1	5	10	15
Leu	Phe	Leu	Gln	Val	Val	Ala	Phe	Leu	Ala	Met	Val	Met	Gly	Thr	20	25	30	
His	Thr	Tyr	Ser	His	Trp	Pro	Ser	Cys	Cys	Pro	Ser	Lys	Gly	Gln	35	40	45	
Asp	Thr	Ser	Glu	Glu	Leu	Leu	Arg	Trp	Ser	Thr	Val	Pro	Val	Pro	50	55	60	
Pro	Leu	Glu	Pro	Ala	Arg	Pro	Asn	Arg	His	Pro	Glu	Ser	Cys	Arg	65	70	75	
Ala	Ser	Glu	Asp	Gly	Pro	Leu	Asn	Ser	Arg	Ala	Ile	Ser	Pro	Trp	80	85	90	
Arg	Tyr	Glu	Leu	Asp	Arg	Asp	Leu	Asn	Arg	Leu	Pro	Gln	Asp	Leu	95	100	105	
Tyr	His	Ala	Arg	Cys	Leu	Cys	Pro	His	Cys	Val	Ser	Leu	Gln	Thr	110	115	120	
Gly	Ser	His	Met	Asp	Pro	Arg	Gly	Asn	Ser	Glu	Leu	Leu	Tyr	His	125	130	135	
Asn	Gln	Thr	Val	Phe	Tyr	Arg	Arg	Pro	Cys	His	Gly	Glu	Lys	Gly	140	145	150	
Thr	His	Lys	Gly	Tyr	Cys	Leu	Glu	Arg	Arg	Leu	Tyr	Arg	Val	Ser	155	160	165	
Leu	Ala	Cys	Val	Cys	Val	Arg	Pro	Arg	Val	Met	Gly	170	175					

<210> 157
 <211> 1515
 <212> DNA
 <213> Homo Sapien

<400> 157
 ccggcgatgt cgctcgtgct gctaagcctg gccgcgctgt gcaggagcgc 50
 cgtaccccca gagccgaccg ttcaatgtgg ctctgaaact gggccatctc 100
 cagagtggat gctacaacat gatctaatacc ccggagactt gagggacctc 150
 cgagtagaac ctgttacaac tagtggtgca acaggggact attcaatttt 200
 gatgaatgta agctgggtac tccgggcaga tgccagcatc cgcttggtga 250
 aggccaccaa gatttggtg acgggcaaaa gcaacttcca gtcctacagc 300
 tgtgtgaggt gcaattacac agaggccttc cagactcaga ccagaccctc 350
 tgggtggtaaa tggacatttt cctacatcgg ctccctgta gagctgaaca 400
 cagtctattt cattggggcc cataatatcc ctaatgcaaa tatgaatgaa 450
 gatggccctt ccatgtctgt gaatttcacc tcaccagggt gcctagacca 500
 cataatgaaa tataaaaaaa agtgtgtcaa ggccggaagc ctgtgggatac 550
 cgaacatcac tgcttgtaag aagaatgagg agacagtaga agtgaacttc 600
 acaaccactc ccctgggaaa cagatacatg gctcttatcc aacacagcac 650
 tatcatcggg ttttctcagg tgtttgagcc acaccagaag aaacaaacgc 700
 gagcttcagt ggtgattcca gtgactgggg atagtgaagg tgctacgggtg 750
 cagctgactc catattttcc tacttggtggc agcgactgca tccgacataa 800
 aggaacagtt gtgctctgcc cacaaacagg cgtccctttc cctctggata 850
 acaacaaaag caagccggga ggctggctgc ctctcctcct gctgtctctg 900
 ctgggtggcca catgggtgct ggtggcaggg atctatctaa tgtggaggca 950
 cgaaaggatc aagaagactt ctttttctac caccacacta ctgcccccca 1000
 ttaaggttct tgtgggttac ccatctgaaa tatgtttcca tcacacaatt 1050
 tgttacttca ctgaatttct tcaaaacat tgacagaagt aggtcatcct 1100
 tgaaaagtgg cagaaaaaga aaatagcaga gatgggtcca gtgcagtggc 1150
 ttgccactca aaagaaggca gcagacaaag tcgtcttcct tctttccaat 1200
 gacgtcaaca gtgtgtgca tggtacctgt ggcaagagcg agggcagtcc 1250
 cagtgagaac tctcaagacc tcttccccct tgcctttaac cttttctgca 1300

gtgatctaag aagccagatt catctgcaca aatacgtggg ggtctacttt 1350
agagagattg atacaaaaga cgattacaat gctctcagtg tctgccccaa 1400
gtaccacctc atgaaggatg ccactgcttt ctgtgcagaa cttctccatg 1450
tcaagcagca ggtgtcagca ggaaaaagat cacaagcctg ccacgatggc 1500
tgctgctcct tgtag 1515

<210> 158

<211> 502

<212> PRT

<213> Homo Sapien

<400> 158

Met	Ser	Leu	Val	Leu	Leu	Ser	Leu	Ala	Ala	Leu	Cys	Arg	Ser	Ala	1	5	10	15
Val	Pro	Arg	Glu	Pro	Thr	Val	Gln	Cys	Gly	Ser	Glu	Thr	Gly	Pro	20	25	30	
Ser	Pro	Glu	Trp	Met	Leu	Gln	His	Asp	Leu	Ile	Pro	Gly	Asp	Leu	35	40	45	
Arg	Asp	Leu	Arg	Val	Glu	Pro	Val	Thr	Thr	Ser	Val	Ala	Thr	Gly	50	55	60	
Asp	Tyr	Ser	Ile	Leu	Met	Asn	Val	Ser	Trp	Val	Leu	Arg	Ala	Asp	65	70	75	
Ala	Ser	Ile	Arg	Leu	Leu	Lys	Ala	Thr	Lys	Ile	Cys	Val	Thr	Gly	80	85	90	
Lys	Ser	Asn	Phe	Gln	Ser	Tyr	Ser	Cys	Val	Arg	Cys	Asn	Tyr	Thr	95	100	105	
Glu	Ala	Phe	Gln	Thr	Gln	Thr	Arg	Pro	Ser	Gly	Gly	Lys	Trp	Thr	110	115	120	
Phe	Ser	Tyr	Ile	Gly	Phe	Pro	Val	Glu	Leu	Asn	Thr	Val	Tyr	Phe	125	130	135	
Ile	Gly	Ala	His	Asn	Ile	Pro	Asn	Ala	Asn	Met	Asn	Glu	Asp	Gly	140	145	150	
Pro	Ser	Met	Ser	Val	Asn	Phe	Thr	Ser	Pro	Gly	Cys	Leu	Asp	His	155	160	165	
Ile	Met	Lys	Tyr	Lys	Lys	Lys	Cys	Val	Lys	Ala	Gly	Ser	Leu	Trp	170	175	180	
Asp	Pro	Asn	Ile	Thr	Ala	Cys	Lys	Lys	Asn	Glu	Glu	Thr	Val	Glu	185	190	195	
Val	Asn	Phe	Thr	Thr	Thr	Pro	Leu	Gly	Asn	Arg	Tyr	Met	Ala	Leu				

				200					205					210	
Ile	Gln	His	Ser	Thr	Ile	Ile	Gly	Phe	Ser	Gln	Val	Phe	Glu	Pro	
				215					220					225	
His	Gln	Lys	Lys	Gln	Thr	Arg	Ala	Ser	Val	Val	Ile	Pro	Val	Thr	
				230					235					240	
Gly	Asp	Ser	Glu	Gly	Ala	Thr	Val	Gln	Leu	Thr	Pro	Tyr	Phe	Pro	
				245					250					255	
Thr	Cys	Gly	Ser	Asp	Cys	Ile	Arg	His	Lys	Gly	Thr	Val	Val	Leu	
				260					265					270	
Cys	Pro	Gln	Thr	Gly	Val	Pro	Phe	Pro	Leu	Asp	Asn	Asn	Lys	Ser	
				275					280					285	
Lys	Pro	Gly	Gly	Trp	Leu	Pro	Leu	Leu	Leu	Leu	Ser	Leu	Leu	Val	
				290					295					300	
Ala	Thr	Trp	Val	Leu	Val	Ala	Gly	Ile	Tyr	Leu	Met	Trp	Arg	His	
				305					310					315	
Glu	Arg	Ile	Lys	Lys	Thr	Ser	Phe	Ser	Thr	Thr	Thr	Leu	Leu	Pro	
				320					325					330	
Pro	Ile	Lys	Val	Leu	Val	Val	Tyr	Pro	Ser	Glu	Ile	Cys	Phe	His	
				335					340					345	
His	Thr	Ile	Cys	Tyr	Phe	Thr	Glu	Phe	Leu	Gln	Asn	His	Cys	Arg	
				350					355					360	
Ser	Glu	Val	Ile	Leu	Glu	Lys	Trp	Gln	Lys	Lys	Lys	Ile	Ala	Glu	
				365					370					375	
Met	Gly	Pro	Val	Gln	Trp	Leu	Ala	Thr	Gln	Lys	Lys	Ala	Ala	Asp	
				380					385					390	
Lys	Val	Val	Phe	Leu	Leu	Ser	Asn	Asp	Val	Asn	Ser	Val	Cys	Asp	
				395					400					405	
Gly	Thr	Cys	Gly	Lys	Ser	Glu	Gly	Ser	Pro	Ser	Glu	Asn	Ser	Gln	
				410					415					420	
Asp	Leu	Phe	Pro	Leu	Ala	Phe	Asn	Leu	Phe	Cys	Ser	Asp	Leu	Arg	
				425					430					435	
Ser	Gln	Ile	His	Leu	His	Lys	Tyr	Val	Val	Val	Tyr	Phe	Arg	Glu	
				440					445					450	
Ile	Asp	Thr	Lys	Asp	Asp	Tyr	Asn	Ala	Leu	Ser	Val	Cys	Pro	Lys	
				455					460					465	
Tyr	His	Leu	Met	Lys	Asp	Ala	Thr	Ala	Phe	Cys	Ala	Glu	Leu	Leu	
				470					475					480	
His	Val	Lys	Gln	Gln	Val	Ser	Ala	Gly	Lys	Arg	Ser	Gln	Ala	Cys	

485

490

495

His Asp Gly Cys Cys Ser Leu
500

<210> 159

<211> 535

<212> DNA

<213> Homo Sapien

<400> 159

agccaccagc gcaacatgac agtgaagacc ctgcatggcc cagccatggt 50
caagtacttg ctgctgtcga tattggggct tgcctttctg agtgaggcgg 100
cagctcggaa aatccccaaa gtaggacata cttttttcca aaagcctgag 150
agttgcccgc ctgtgccagg aggtagtatg aagcttgaca ttggcatcat 200
caatgaaaac cagcgcgttt ccatgtcacg taacatcgag agccgctcca 250
cctccccctg gaattacact gtcacttggg accccaaccg gtaccctctg 300
gaagttgtac aggcccagtg taggaacttg ggctgcatca atgctcaagg 350
aaaggaagac atctccatga attccgttcc catccagcaa gagaccctgg 400
tcgtccggag gaagcaccaa ggctgctctg tttctttcca gttggagaag 450
gtgctggtga ctgttggtg cacctgcgtc acccctgtca tccaccatgt 500
gcagtaagag gtgcatatcc actcagctga agaag 535

<210> 160

<211> 163

<212> PRT

<213> Homo Sapien

<400> 160

Met	Thr	Val	Lys	Thr	Leu	His	Gly	Pro	Ala	Met	Val	Lys	Tyr	Leu
1				5					10					15
Leu	Leu	Ser	Ile	Leu	Gly	Leu	Ala	Phe	Leu	Ser	Glu	Ala	Ala	Ala
				20					25					30
Arg	Lys	Ile	Pro	Lys	Val	Gly	His	Thr	Phe	Phe	Gln	Lys	Pro	Glu
				35					40					45
Ser	Cys	Pro	Pro	Val	Pro	Gly	Gly	Ser	Met	Lys	Leu	Asp	Ile	Gly
				50					55					60
Ile	Ile	Asn	Glu	Asn	Gln	Arg	Val	Ser	Met	Ser	Arg	Asn	Ile	Glu
				65					70					75
Ser	Arg	Ser	Thr	Ser	Pro	Trp	Asn	Tyr	Thr	Val	Thr	Trp	Asp	Pro
				80					85					90

Asn	Arg	Tyr	Pro	Ser	Glu	Val	Val	Gln	Ala	Gln	Cys	Arg	Asn	Leu
				95					100					105
Gly	Cys	Ile	Asn	Ala	Gln	Gly	Lys	Glu	Asp	Ile	Ser	Met	Asn	Ser
				110					115					120
Val	Pro	Ile	Gln	Gln	Glu	Thr	Leu	Val	Val	Arg	Arg	Lys	His	Gln
				125					130					135
Gly	Cys	Ser	Val	Ser	Phe	Gln	Leu	Glu	Lys	Val	Leu	Val	Thr	Val
				140					145					150
Gly	Cys	Thr	Cys	Val	Thr	Pro	Val	Ile	His	His	Val	Gln		
				155					160					

<210> 161

<211> 2380

<212> DNA

<213> Homo Sapien

<400> 161

```

acactggcca aacaaaaacg aaagcactcc gtgctggaag taggaggaga 50
gtcaggactc ccaggacaga gagtgcacaa actaccagc acagcccct 100
ccgccccctc tggaggctga agagggatc cagcccctgc caccacaga 150
cacgggctga ctgggggtgc tgccccctt gggggggggc agcacagggc 200
ctcaggcctg ggtgccacct ggcacctaga agatgcctgt gccctggttc 250
ttgctgtcct tggcactggg ccgaagccca gtggtccttt ctctggagag 300
gcttgtgggg cctcaggacg ctaccactg ctctccgggc ctctcctgcc 350
gcctctggga cagtacata ctctgcctgc ctggggacat cgtgcctgct 400
ccgggccccg tgctggcgcc tacgcacctg cagacagagc tgggtgctgag 450
gtgccagaag gagaccgact gtgacctctg tctgcgtgtg gctgtccact 500
tggccgtgca tgggcactgg gaagagcctg aagatgagga aaagtttgga 550
ggagcagctg actcaggggt ggaggagcct aggaatgcct ctctccaggc 600
ccaagtctg ctctccttcc aggccctacc tactgcccgc tgcgtcctgc 650
tggaggtgca agtgctgct gcccttgtgc agtttggtca gtctgtgggc 700
tctgtggtat atgactgctt cgaggctgcc ctagggagtg aggtacgaat 750
ctggtcctat actcagccca ggtacgagaa ggaactcaac cacacacagc 800
agctgcctgc cctgccctgg ctcaacgtgt cagcagatgg tgacaacgtg 850
catctggttc tgaatgtctc tgaggagcag cacttcggcc tctccctgta 900
ctggaatcag gtccagggcc ccccaaaacc ccggtggcac aaaaacctga 950

```

ctggaccgca gatcattacc ttgaaccaca cagacctggt tccctgcctc 1000
 tgtattcagg tgtggcctct ggaacctgac tccgttagga cgaacatctg 1050
 ccccttcagg gaggaccccc gcgcacacca gaacctctgg caagccgccc 1100
 gactgcgact gctgacctg cagagctggc tgctggacgc accgtgctcg 1150
 ctgcccgcag aagcggcact gtgctggcgg gctccgggtg gggacctctg 1200
 ccagccactg gtcccaccgc tttcctggga gaacgtcact gtggacaagg 1250
 ttctcgagtt cccattgctg aaaggccacc ctaacctctg tggttcagggtg 1300
 aacagctcgg agaagctgca gctgcaggag tgcttggtgg ctgactccct 1350
 ggggcctctc aaagacgatg tgctactgtt ggagacacga ggcccccagg 1400
 acaacagatc cctctgtgcc ttggaaccca gtggctgtac ttcactaccc 1450
 agcaaagcct ccacgagggc agctcgcctt ggagagtact tactacaaga 1500
 cctgcagtca ggccagtgtc tgcagctatg ggacgatgac ttgggagcgc 1550
 tatgggcctg ccccatggac aaatacatcc acaagcgtg ggcctcgtg 1600
 tggctggcct gcctactctt tgccgctgcg ctttccctca tctccttct 1650
 caaaaaggat cacgcgaaag ggtggctgag gctcttgaaa caggacgtcc 1700
 gctcgggggc ggccgccagg ggccgcgcgg ctctgctcct ctactcagcc 1750
 gatgactcgg gtttcgagcg cctggtgggc gccctggcgt cggccctgtg 1800
 ccagctgccg ctgcgcgtgg ccgtagacct gtggagccgt cgtgaactga 1850
 gcgcgcaggg gcccggtggc tggtttcacg cgcagcggcg ccagaccctg 1900
 caggagggcg gcgtggtggc cttgctcttc tctcccgtg cggtggcgt 1950
 gtgcagcgag tggctacagg atggggtgtc cgggcccggg gcgcacggcc 2000
 cgcacgacgc cttccgcgcc tcgctcagct gcgtgctgcc cgacttcttg 2050
 cagggccggg cggccggcag ctacgtgggg gcctgcttcg acaggctgct 2100
 ccaccggac gccgtaccg cccttttccg caccgtgcc gtcttcacac 2150
 tgccctccca actgccagac ttcctggggg ccctgcagca gcctcgcgcc 2200
 ccgcgttccg ggcggtcca agagagagcg gagcaagtgt cccgggccct 2250
 tcagccagcc ctggatagct acttccatcc cccggggact cccgcgccgg 2300
 gacgcggggg gggaccaggg gcgggacctg gggcggggga cgggacttaa 2350

ataaaggcag acgctgtttt tctaaaaaaa 2380

<210> 162

<211> 705

<212> PRT

<213> Homo Sapien

<400> 162

Met	Pro	Val	Pro	Trp	Phe	Leu	Leu	Ser	Leu	Ala	Leu	Gly	Arg	Ser
1				5					10					15

Pro	Val	Val	Leu	Ser	Leu	Glu	Arg	Leu	Val	Gly	Pro	Gln	Asp	Ala
				20					25					30

Thr	His	Cys	Ser	Pro	Gly	Leu	Ser	Cys	Arg	Leu	Trp	Asp	Ser	Asp
				35					40					45

Ile	Leu	Cys	Leu	Pro	Gly	Asp	Ile	Val	Pro	Ala	Pro	Gly	Pro	Val
				50					55					60

Leu	Ala	Pro	Thr	His	Leu	Gln	Thr	Glu	Leu	Val	Leu	Arg	Cys	Gln
				65					70					75

Lys	Glu	Thr	Asp	Cys	Asp	Leu	Cys	Leu	Arg	Val	Ala	Val	His	Leu
				80					85					90

Ala	Val	His	Gly	His	Trp	Glu	Glu	Pro	Glu	Asp	Glu	Glu	Lys	Phe
				95					100					105

Gly	Gly	Ala	Ala	Asp	Ser	Gly	Val	Glu	Glu	Pro	Arg	Asn	Ala	Ser
				110					115					120

Leu	Gln	Ala	Gln	Val	Val	Leu	Ser	Phe	Gln	Ala	Tyr	Pro	Thr	Ala
				125					130					135

Arg	Cys	Val	Leu	Leu	Glu	Val	Gln	Val	Pro	Ala	Ala	Leu	Val	Gln
				140					145					150

Phe	Gly	Gln	Ser	Val	Gly	Ser	Val	Val	Tyr	Asp	Cys	Phe	Glu	Ala
				155					160					165

Ala	Leu	Gly	Ser	Glu	Val	Arg	Ile	Trp	Ser	Tyr	Thr	Gln	Pro	Arg
				170					175					180

Tyr	Glu	Lys	Glu	Leu	Asn	His	Thr	Gln	Gln	Leu	Pro	Ala	Leu	Pro
				185					190					195

Trp	Leu	Asn	Val	Ser	Ala	Asp	Gly	Asp	Asn	Val	His	Leu	Val	Leu
				200					205					210

Asn	Val	Ser	Glu	Glu	Gln	His	Phe	Gly	Leu	Ser	Leu	Tyr	Trp	Asn
				215					220					225

Gln	Val	Gln	Gly	Pro	Pro	Lys	Pro	Arg	Trp	His	Lys	Asn	Leu	Thr
				230					235					240

Gly	Pro	Gln	Ile	Ile	Thr	Leu	Asn	His	Thr	Asp	Leu	Val	Pro	Cys
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

	245		250		255
Leu Cys Ile Gln Val Trp Pro Leu Glu	Pro Asp Ser Val Arg Thr				
260	265				270
Asn Ile Cys Pro Phe Arg Glu Asp Pro	Arg Ala His Gln Asn Leu				
275	280				285
Trp Gln Ala Ala Arg Leu Arg Leu Leu	Thr Leu Gln Ser Trp Leu				
290	295				300
Leu Asp Ala Pro Cys Ser Leu Pro Ala	Glu Ala Ala Leu Cys Trp				
305	310				315
Arg Ala Pro Gly Gly Asp Pro Cys Gln	Pro Leu Val Pro Pro Leu				
320	325				330
Ser Trp Glu Asn Val Thr Val Asp Lys	Val Leu Glu Phe Pro Leu				
335	340				345
Leu Lys Gly His Pro Asn Leu Cys Val	Gln Val Asn Ser Ser Glu				
350	355				360
Lys Leu Gln Leu Gln Glu Cys Leu Trp	Ala Asp Ser Leu Gly Pro				
365	370				375
Leu Lys Asp Asp Val Leu Leu Leu Glu	Thr Arg Gly Pro Gln Asp				
380	385				390
Asn Arg Ser Leu Cys Ala Leu Glu Pro	Ser Gly Cys Thr Ser Leu				
395	400				405
Pro Ser Lys Ala Ser Thr Arg Ala Ala	Arg Leu Gly Glu Tyr Leu				
410	415				420
Leu Gln Asp Leu Gln Ser Gly Gln Cys	Leu Gln Leu Trp Asp Asp				
425	430				435
Asp Leu Gly Ala Leu Trp Ala Cys Pro	Met Asp Lys Tyr Ile His				
440	445				450
Lys Arg Trp Ala Leu Val Trp Leu Ala	Cys Leu Leu Phe Ala Ala				
455	460				465
Ala Leu Ser Leu Ile Leu Leu Leu Lys	Lys Asp His Ala Lys Gly				
470	475				480
Trp Leu Arg Leu Leu Lys Gln Asp Val	Arg Ser Gly Ala Ala Ala				
485	490				495
Arg Gly Arg Ala Ala Leu Leu Leu Tyr	Ser Ala Asp Asp Ser Gly				
500	505				510
Phe Glu Arg Leu Val Gly Ala Leu Ala	Ser Ala Leu Cys Gln Leu				
515	520				525
Pro Leu Arg Val Ala Val Asp Leu Trp	Ser Arg Arg Glu Leu Ser				

530	535	540
Ala Gln Gly Pro Val Ala Trp Phe His	Ala Gln Arg Arg Gln Thr	
545	550	555
Leu Gln Glu Gly Gly Val Val Val Leu	Leu Phe Ser Pro Gly Ala	
560	565	570
Val Ala Leu Cys Ser Glu Trp Leu Gln	Asp Gly Val Ser Gly Pro	
575	580	585
Gly Ala His Gly Pro His Asp Ala Phe	Arg Ala Ser Leu Ser Cys	
590	595	600
Val Leu Pro Asp Phe Leu Gln Gly Arg	Ala Pro Gly Ser Tyr Val	
605	610	615
Gly Ala Cys Phe Asp Arg Leu Leu His	Pro Asp Ala Val Pro Ala	
620	625	630
Leu Phe Arg Thr Val Pro Val Phe Thr	Leu Pro Ser Gln Leu Pro	
635	640	645
Asp Phe Leu Gly Ala Leu Gln Gln Pro	Arg Ala Pro Arg Ser Gly	
650	655	660
Arg Leu Gln Glu Arg Ala Glu Gln Val	Ser Arg Ala Leu Gln Pro	
665	670	675
Ala Leu Asp Ser Tyr Phe His Pro Pro	Gly Thr Pro Ala Pro Gly	
680	685	690
Arg Gly Val Gly Pro Gly Ala Gly Pro	Gly Ala Gly Asp Gly Thr	
695	700	705

<210> 163
 <211> 2478
 <212> DNA
 <213> Homo Sapien

<400> 163
 gtcagtgcgg gaggcgggtc agccaccaag atgactgaca gggttcagctc 50
 tctgcagcac actaccctca agccacctga tgtgacctgt atctccaaag 100
 tgagatcgat tcagatgatt gttcatccta cccccacgcc aatccgtgca 150
 ggcgatggcc accggctaac cctggaagac atcttccatg acctgttcta 200
 ccacttagag ctccaggtca accgcaccta ccaaatagcac cttggaggga 250
 agcagagaga atatgagttc ttcggcctga cccctgacac agagttcctt 300
 ggcaccatca tgatttgcgt tcccacctgg gccaaaggaga gtgcccccta 350
 catgtgccga gtgaagacac tgccagaccg gacatggacc tactccttct 400

ccggagcctt cctgttctcc atgggcttcc tcgtcgcagt actctgctac 450
 ctgagctaca gatatgtcac caagccgcct gcacctcca actccctgaa 500
 cgtccagcga gtccctgactt tccagccgct gcgcttcac caggagcacg 550
 tcctgatccc tgtctttgac ctacgcggcc ccagcagtct ggcccagcct 600
 gtccagtact cccagatcag ggtgtctgga cccagggagc ccgcaggagc 650
 tccacagcgg catagcctgt ccgagatcac ctacttaggg cagccagaca 700
 tctccatcct ccagccctcc aacgtgccac ctccccagat cctctcccca 750
 ctgtcctatg ccccaaacgc tgcccctgag gtcgggcccc catcctatgc 800
 acctcaggtg acccccgaag ctcaattccc attctacgcc ccacaggcca 850
 tctctaaggt ccagccttcc tcctatgccc ctcaagccac tccggacagc 900
 tggcctccct cctatggggt atgcatggaa ggttctggca aagactcccc 950
 cactgggaca ctttctagtc ctaaacacct taggcctaaa ggtcagcttc 1000
 agaaagagcc accagctgga agctgcatgt taggtggcct ttctctgcag 1050
 gaggtgacct ccttggctat ggaggaatcc caagaagcaa aatcattgca 1100
 ccagcccctg gggatttgca cagacagaac atctgacca aatgtgctac 1150
 acagtgggga ggaagggaca ccacagtacc taaagggcca gctccccctc 1200
 ctctcctcag tccagatcga gggccacccc atgtccctcc ctttgcaacc 1250
 tccttcgggt ccatgttccc cctcggacca aggtccaagt ccctggggcc 1300
 tgctggagtc ccttgtgtgt cccaaggatg aagccaagag cccagcccct 1350
 gagacctcag acctggagca gccacagaa ctggattctc ttttcagagg 1400
 cctggccctg actgtgcagt gggagtcctg aggggaatgg gaaaggcttg 1450
 gtgcttcctc cctgtcccta ccagtggtca catccttggc tgtcaatccc 1500
 atgcctgccc atgccacaca ctctgcgac tcggcctcaga cgggtgccct 1550
 tgagagaagc agaggagtg gcatgcaggg cccctgccat ggggtgcgctc 1600
 ctaccggaa caaagcagca tgataaggac tgcagcgggg gagctctggg 1650
 gagcagcttg ttagacaag cgcgtgctcg ctgagccctg caaggcagaa 1700
 atgacagtgc aaggaggaaa tgcagggaaa ctcccagagt ccagagcccc 1750
 acctcctaac accatggatt caaagtgtct agggaaatttg cctctccttg 1800
 ccccatcctt ggccagtttc acaatctagc tcgacagagc atgaggcccc 1850

tgcctcttct gtcattgttc aaaggtggga agagagcctg gaaaagaacc 1900
 aggcctggaa aagaaccaga aggaggctgg gcagaaccag aacaacctgc 1950
 acttctgcc aagccagggc cagcaggacg gcaggactct agggaggggt 2000
 gtggcctgca gctcattccc agccagggca actgcctgac gttgcacgat 2050
 ttcagcttca ttcctctgat agaacaaagc gaaatgcagg tccaccaggg 2100
 agggagacac acaagccttt tctgcaggca ggagtttcag accctatcct 2150
 gagaatgggg tttgaaagga aggtgagggc tgtggcccct ggacgggtac 2200
 aataacacac tgtactgatg tcacaacttt gcaagctctg ccttggggtc 2250
 agcccatctg ggctcaaatt ccagcctcac cactcacaag ctgtgtgact 2300
 tcaaacaaat gaaatcagtg cccagaacct cggtttcctc atctgtaatg 2350
 tggggatcat aacacctacc tcatggagtt gtggtgaaga tgaaatgaag 2400
 tcatgtcttt aaagtgccta atagtgcctg gtacatgggc agtgcccaat 2450
 aaacggtagc tatttaaaaa aaaaaaaaa 2478

<210> 164
 <211> 574
 <212> PRT
 <213> Homo Sapien

<400> 164
 Met Arg Thr Leu Leu Thr Ile Leu Thr Val Gly Ser Leu Ala Ala
 1 5 10 15
 His Ala Pro Glu Asp Pro Ser Asp Leu Leu Gln His Val Lys Phe
 20 25 30
 Gln Ser Ser Asn Phe Glu Asn Ile Leu Thr Trp Asp Ser Gly Pro
 35 40 45
 Glu Gly Thr Pro Asp Thr Val Tyr Ser Ile Glu Tyr Lys Thr Tyr
 50 55 60
 Gly Glu Arg Asp Trp Val Ala Lys Lys Gly Cys Gln Arg Ile Thr
 65 70 75
 Arg Lys Ser Cys Asn Leu Thr Val Glu Thr Gly Asn Leu Thr Glu
 80 85 90
 Leu Tyr Tyr Ala Arg Val Thr Ala Val Ser Ala Gly Gly Arg Ser
 95 100 105
 Ala Thr Lys Met Thr Asp Arg Phe Ser Ser Leu Gln His Thr Thr
 110 115 120
 Leu Lys Pro Pro Asp Val Thr Cys Ile Ser Lys Val Arg Ser Ile

				125					130					135
Gln	Met	Ile	Val	His	Pro	Thr	Pro	Thr	Pro	Ile	Arg	Ala	Gly	Asp
				140					145					150
Gly	His	Arg	Leu	Thr	Leu	Glu	Asp	Ile	Phe	His	Asp	Leu	Phe	Tyr
				155					160					165
His	Leu	Glu	Leu	Gln	Val	Asn	Arg	Thr	Tyr	Gln	Met	His	Leu	Gly
				170					175					180
Gly	Lys	Gln	Arg	Glu	Tyr	Glu	Phe	Phe	Gly	Leu	Thr	Pro	Asp	Thr
				185					190					195
Glu	Phe	Leu	Gly	Thr	Ile	Met	Ile	Cys	Val	Pro	Thr	Trp	Ala	Lys
				200					205					210
Glu	Ser	Ala	Pro	Tyr	Met	Cys	Arg	Val	Lys	Thr	Leu	Pro	Asp	Arg
				215					220					225
Thr	Trp	Thr	Tyr	Ser	Phe	Ser	Gly	Ala	Phe	Leu	Phe	Ser	Met	Gly
				230					235					240
Phe	Leu	Val	Ala	Val	Leu	Cys	Tyr	Leu	Ser	Tyr	Arg	Tyr	Val	Thr
				245					250					255
Lys	Pro	Pro	Ala	Pro	Pro	Asn	Ser	Leu	Asn	Val	Gln	Arg	Val	Leu
				260					265					270
Thr	Phe	Gln	Pro	Leu	Arg	Phe	Ile	Gln	Glu	His	Val	Leu	Ile	Pro
				275					280					285
Val	Phe	Asp	Leu	Ser	Gly	Pro	Ser	Ser	Leu	Ala	Gln	Pro	Val	Gln
				290					295					300
Tyr	Ser	Gln	Ile	Arg	Val	Ser	Gly	Pro	Arg	Glu	Pro	Ala	Gly	Ala
				305					310					315
Pro	Gln	Arg	His	Ser	Leu	Ser	Glu	Ile	Thr	Tyr	Leu	Gly	Gln	Pro
				320					325					330
Asp	Ile	Ser	Ile	Leu	Gln	Pro	Ser	Asn	Val	Pro	Pro	Pro	Gln	Ile
				335					340					345
Leu	Ser	Pro	Leu	Ser	Tyr	Ala	Pro	Asn	Ala	Ala	Pro	Glu	Val	Gly
				350					355					360
Pro	Pro	Ser	Tyr	Ala	Pro	Gln	Val	Thr	Pro	Glu	Ala	Gln	Phe	Pro
				365					370					375
Phe	Tyr	Ala	Pro	Gln	Ala	Ile	Ser	Lys	Val	Gln	Pro	Ser	Ser	Tyr
				380					385					390
Ala	Pro	Gln	Ala	Thr	Pro	Asp	Ser	Trp	Pro	Pro	Ser	Tyr	Gly	Val
				395					400					405
Cys	Met	Glu	Gly	Ser	Gly	Lys	Asp	Ser	Pro	Thr	Gly	Thr	Leu	Ser

410					415					420				
Ser	Pro	Lys	His	Leu	Arg	Pro	Lys	Gly	Gln	Leu	Gln	Lys	Glu	Pro
				425					430					435
Pro	Ala	Gly	Ser	Cys	Met	Leu	Gly	Gly	Leu	Ser	Leu	Gln	Glu	Val
				440					445					450
Thr	Ser	Leu	Ala	Met	Glu	Glu	Ser	Gln	Glu	Ala	Lys	Ser	Leu	His
				455					460					465
Gln	Pro	Leu	Gly	Ile	Cys	Thr	Asp	Arg	Thr	Ser	Asp	Pro	Asn	Val
				470					475					480
Leu	His	Ser	Gly	Glu	Glu	Gly	Thr	Pro	Gln	Tyr	Leu	Lys	Gly	Gln
				485					490					495
Leu	Pro	Leu	Leu	Ser	Ser	Val	Gln	Ile	Glu	Gly	His	Pro	Met	Ser
				500					505					510
Leu	Pro	Leu	Gln	Pro	Pro	Ser	Gly	Pro	Cys	Ser	Pro	Ser	Asp	Gln
				515					520					525
Gly	Pro	Ser	Pro	Trp	Gly	Leu	Leu	Glu	Ser	Leu	Val	Cys	Pro	Lys
				530					535					540
Asp	Glu	Ala	Lys	Ser	Pro	Ala	Pro	Glu	Thr	Ser	Asp	Leu	Glu	Gln
				545					550					555
Pro	Thr	Glu	Leu	Asp	Ser	Leu	Phe	Arg	Gly	Leu	Ala	Leu	Thr	Val
				560					565					570

Gln Trp Glu Ser

<210> 165
 <211> 1060
 <212> DNA
 <213> Homo Sapien

<400> 165
 tggcctactg gaaaaaaaaa aaaaaaaaaa aaaagtcacc cgggcccgcg 50
 gtggccacaa catggctgcg gcgccggggc tgctcttctg gctgttcgtg 100
 ctggggggcgc tctggtgggt cccggggccag tcggatctca gccacggacg 150
 gcgttttctcg gacctcaaag tgtgcgggga cgaagagtgc agcatgttaa 200
 tgtaccgtgg gaaagctctt gaagacttca cgggccctga ttgtcgtttt 250
 gtgaattttta aaaaagggtga cgatgtatat gtctactaca aactggcagg 300
 gggatccctt gaactttggg ctggaagtgt tgaacacagt tttggatatt 350
 ttccaaaaga tttgatcaag gtacttcata aatacacgga agaagagcta 400

catattccag cagatgagac agactttgtc tgctttgaag gaggaagaga 450
tgattttaat agttataatg tagaagagct tttaggatct ttggaactgg 500
aggactctgt acctgaagag tcgaagaaag ctgaagaagt ttctcagcac 550
agagagaaat ctctgagga gtctcggggg cgtgaacttg accctgtgcc 600
tgagcccgag gcattcagag ctgattcaga ggatggagaa ggtgctttct 650
cagagagcac cgaggggctg cagggacagc cctcagctca ggagagccac 700
cctcacacca gcggtcctgc ggctaacgct cagggagtgc agtcttcgtt 750
ggacactttt gaagaaattc tgcacgataa attgaaagtg ccggaagcg 800
aaagcagaac tggcaatagt tctcctgcct cgggtggagcg ggagaagaca 850
gatgcttaca aagtctgaa aacagaaatg agtcagagag gaagtggaca 900
gtgcggttatt cattacagca aaggatttcg ttggcatcaa aatctaagtt 950
tgttttacaa agattgtttt tagtactaag ctgccttggc agtttgcatt 1000
tttgagccaa acaaaaatat attattttcc cttctaagta aaaaaaaaaa 1050
aaaaaaaaaa 1060

<210> 166

<211> 303

<212> PRT

<213> Homo Sapien

<400> 166

Met	Ala	Ala	Ala	Pro	Gly	Leu	Leu	Phe	Trp	Leu	Phe	Val	Leu	Gly
1				5					10					15
Ala	Leu	Trp	Trp	Val	Pro	Gly	Gln	Ser	Asp	Leu	Ser	His	Gly	Arg
				20					25					30
Arg	Phe	Ser	Asp	Leu	Lys	Val	Cys	Gly	Asp	Glu	Glu	Cys	Ser	Met
				35					40					45
Leu	Met	Tyr	Arg	Gly	Lys	Ala	Leu	Glu	Asp	Phe	Thr	Gly	Pro	Asp
				50					55					60
Cys	Arg	Phe	Val	Asn	Phe	Lys	Lys	Gly	Asp	Asp	Val	Tyr	Val	Tyr
				65					70					75
Tyr	Lys	Leu	Ala	Gly	Gly	Ser	Leu	Glu	Leu	Trp	Ala	Gly	Ser	Val
				80					85					90
Glu	His	Ser	Phe	Gly	Tyr	Phe	Pro	Lys	Asp	Leu	Ile	Lys	Val	Leu
				95					100					105
His	Lys	Tyr	Thr	Glu	Glu	Glu	Leu	His	Ile	Pro	Ala	Asp	Glu	Thr
				110					115					120

Asp	Phe	Val	Cys	Phe	Glu	Gly	Gly	Arg	Asp	Asp	Phe	Asn	Ser	Tyr	125	130	135
Asn	Val	Glu	Glu	Leu	Leu	Gly	Ser	Leu	Glu	Leu	Glu	Asp	Ser	Val	140	145	150
Pro	Glu	Glu	Ser	Lys	Lys	Ala	Glu	Glu	Val	Ser	Gln	His	Arg	Glu	155	160	165
Lys	Ser	Pro	Glu	Glu	Ser	Arg	Gly	Arg	Glu	Leu	Asp	Pro	Val	Pro	170	175	180
Glu	Pro	Glu	Ala	Phe	Arg	Ala	Asp	Ser	Glu	Asp	Gly	Glu	Gly	Ala	185	190	195
Phe	Ser	Glu	Ser	Thr	Glu	Gly	Leu	Gln	Gly	Gln	Pro	Ser	Ala	Gln	200	205	210
Glu	Ser	His	Pro	His	Thr	Ser	Gly	Pro	Ala	Ala	Asn	Ala	Gln	Gly	215	220	225
Val	Gln	Ser	Ser	Leu	Asp	Thr	Phe	Glu	Glu	Ile	Leu	His	Asp	Lys	230	235	240
Leu	Lys	Val	Pro	Gly	Ser	Glu	Ser	Arg	Thr	Gly	Asn	Ser	Ser	Pro	245	250	255
Ala	Ser	Val	Glu	Arg	Glu	Lys	Thr	Asp	Ala	Tyr	Lys	Val	Leu	Lys	260	265	270
Thr	Glu	Met	Ser	Gln	Arg	Gly	Ser	Gly	Gln	Cys	Val	Ile	His	Tyr	275	280	285
Ser	Lys	Gly	Phe	Arg	Trp	His	Gln	Asn	Leu	Ser	Leu	Phe	Tyr	Lys	290	295	300

Asp Cys Phe

<210> 167

<211> 2570

<212> DNA

<213> Homo Sapien

<400> 167

```

ccaggaccag ggcgcaccgg ctcagcctct cacttgctcag aggccgggga 50
agagaagcaa agcgcaacgg tgtggtccaa gccgggggctt ctgcttcgcc 100
tctaggacat acacgggacc ccctaacttc agtcccccaa acgcgcaccc 150
tcgaagtctt gaactccagc cccgcacatc cacgcgcggc acaggcgagg 200
caggcggcag gtcccgggcg aaggcgatgc gcgcaggggg tcgggcagct 250
gggctcgggc ggcgggagta gggcccggca gggaggcagg gaggctgcat 300

```

attcagagtc gcgggctgcg ccctgggcag aggccgccct cgctccacgc 350
 aacacctgct gctgccaccg cgccgcgatg agccgcgtgg tctcgctgct 400
 gctgggcgcc gcgctgctct gcggccacgg agccttctgc cgccgcgtgg 450
 tcagcggcca aaaggtgtgt tttgctgact tcaagcatcc ctgctacaaa 500
 atggcctact tccatgaact gtccagccga gtgagctttc aggaggcacg 550
 cctggcttgt gagagtgagg gaggagtccct cctcagcctt gagaatgaag 600
 cagaacagaa gttaatagag agcatgttgc aaaacctgac aaaacccggg 650
 acagggattt ctgatggtga tttctggata gggctttgga ggaatggaga 700
 tgggcaaaca tctggtgcct gccagatct ctaccagtgg tctgatggaa 750
 gcaattccca gtaccgaaac tggtagacag atgaaccttc ctgcggaagt 800
 gaaaagtgtg ttgtgatgta tcaccaacca actgccaatc ctggccttgg 850
 gggccctac ctttaccagt ggaatgatga caggtgtaac atgaagcaca 900
 attatatttg caagtatgaa ccagagatta atccaacagc ccctgtagaa 950
 aagccttatt ttacaaatca accaggagac acccatcaga atgtggttgt 1000
 tactgaagca ggtataattc ccaatctaatt ttatgttgtt ataccaacaa 1050
 taccctgct cttactgata ctggttgctt ttggaacctg ttgtttccag 1100
 atgctgcata aaagtaaagg aagaacaaaa actagtccaa accagtctac 1150
 actgtggatt tcaaagagta ccagaaaaga aagtggcatg gaagtataat 1200
 aactcattga cttggttcca gaattttgta attctggatc tgtataagga 1250
 atggcatcag aacaatagct tggaatggct tgaaatcaca aaggatctgc 1300
 aagatgaact gtaagctccc cttgaggca aatattaaag taatttttat 1350
 atgtctatta tttcatttaa agaatatgct gtgctaataa tggagtgaga 1400
 catgcttatt ttgctaaagg atgcacccaa acttcaaact tcaagcaaatt 1450
 gaaatggaca atgcagataa agttgttatc aacacgtcgg gagtatgtgt 1500
 gttagaagca attcctttta tttctttcac ctttcataag ttgttatcta 1550
 gtcaatgtaa tgtatattgt attgaaattt acagtgtgca aaagtatttt 1600
 acctttgcat aagtgtttga taaaaatgaa ctgttctaatt atttattttt 1650
 atggcatctc atttttcaat acatgctctt ttgattaaag aaacttatta 1700
 ctgttgctca ctgaattcac acacacacaa atatagtacc atagaaaaag 1750

tttgttttct cgaaataatt catctttcag cttctctgct tttggtcaat 1800
 gtctaggaaa tctcttcaga aataagaagc tatttcatta agtgtgatat 1850
 aaacctcctc aaacatttta cttagaggca aggattgtct aatttcaatt 1900
 gtgcaagaca tgtgccttat aattatTTTT agcttaaaat taaacagatt 1950
 ttgtaataat gtaactttgt taataggtgc ataaacacta atgcagtcaa 2000
 tttgaacaaa agaagtgaca tacacaatat aaatcatatg tcttcacacg 2050
 ttgcctatat aatgagaagc agctctctga gggttctgaa atcaatgtgg 2100
 tccctctctt gccactaaa caaagatggg tgttcggggg ttgggattga 2150
 cactggagggc agatagttgc aaagttagtc taagggttcc ctagctgtat 2200
 ttagcctctg actatattag tatacaaaga ggtcatgtgg ttgagaccag 2250
 gtgaatagtc actatcagtg tggagacaag cacagcacac agacatttta 2300
 ggaaggaaaag gaactacgaa atcgtgtgaa aatgggttgg aacccatcag 2350
 tgatcgcata ttcattgatg agggtttgct tgagatagaa aatgggtggct 2400
 cctttctgtc ttatctccta gtttcttcaa tgcttacgcc ttgttcttct 2450
 caagagaaaag ttgtaactct ctggtcttca tatgtccctg tgctcctttt 2500
 aaccaaataa agagttcttg tttctggggg aaaaaaaaaa aaaaaaaaaa 2550
 aaaaaaaaaa aaaaaaaaaa 2570

<210> 168

<211> 273

<212> PRT

<213> Homo Sapien

<400> 168

Met	Ser	Arg	Val	Val	Ser	Leu	Leu	Leu	Gly	Ala	Ala	Leu	Leu	Cys
1				5					10					15
Gly	His	Gly	Ala	Phe	Cys	Arg	Arg	Val	Val	Ser	Gly	Gln	Lys	Val
				20					25					30
Cys	Phe	Ala	Asp	Phe	Lys	His	Pro	Cys	Tyr	Lys	Met	Ala	Tyr	Phe
				35					40					45
His	Glu	Leu	Ser	Ser	Arg	Val	Ser	Phe	Gln	Glu	Ala	Arg	Leu	Ala
				50					55					60
Cys	Glu	Ser	Glu	Gly	Gly	Val	Leu	Leu	Ser	Leu	Glu	Asn	Glu	Ala
				65					70					75
Glu	Gln	Lys	Leu	Ile	Glu	Ser	Met	Leu	Gln	Asn	Leu	Thr	Lys	Pro
				80					85					90

Gly Thr Gly Ile Ser Asp Gly Asp Phe Trp Ile Gly Leu Trp Arg	95	100	105
Asn Gly Asp Gly Gln Thr Ser Gly Ala Cys Pro Asp Leu Tyr Gln	110	115	120
Trp Ser Asp Gly Ser Asn Ser Gln Tyr Arg Asn Trp Tyr Thr Asp	125	130	135
Glu Pro Ser Cys Gly Ser Glu Lys Cys Val Val Met Tyr His Gln	140	145	150
Pro Thr Ala Asn Pro Gly Leu Gly Gly Pro Tyr Leu Tyr Gln Trp	155	160	165
Asn Asp Asp Arg Cys Asn Met Lys His Asn Tyr Ile Cys Lys Tyr	170	175	180
Glu Pro Glu Ile Asn Pro Thr Ala Pro Val Glu Lys Pro Tyr Leu	185	190	195
Thr Asn Gln Pro Gly Asp Thr His Gln Asn Val Val Val Thr Glu	200	205	210
Ala Gly Ile Ile Pro Asn Leu Ile Tyr Val Val Ile Pro Thr Ile	215	220	225
Pro Leu Leu Leu Leu Ile Leu Val Ala Phe Gly Thr Cys Cys Phe	230	235	240
Gln Met Leu His Lys Ser Lys Gly Arg Thr Lys Thr Ser Pro Asn	245	250	255
Gln Ser Thr Leu Trp Ile Ser Lys Ser Thr Arg Lys Glu Ser Gly	260	265	270

Met Glu Val

<210> 169

<211> 43

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 169

tgtaaaacga cggccagtta aatagacctg caattattaa tct 43

<210> 170

<211> 41

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 170

caggaaacag ctatgaccac ctgcacacct gcaaattccat t 41